



WATER MANAGEMENT &  
LONG RANGE PLANNING  
COMMITTEE  
AGENDA LETTER

**Secretary of the Board of  
Directors**

4699 Hollister Avenue,  
Goleta, CA 93110  
(805) 879-4621

**Department Name:** Water Supply &  
Conservation  
**For Agenda Of:** December 19, 2013  
**Estimated Time** 10 minutes  
**Continued Item:** No  
**If Yes, Date From:** N/A

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**TO:** Committee Members

**FROM:** Department: Water Supply & Conservation  
Contact Info: Kirsten McLaughlin, Water Supply & Conservation Manager

**SUBJECT: Hydraulic Fracturing Update**

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**Legal Concurrence:**

As to form: N/A

**Recommended Action:**

Receive an update on hydraulic fracturing and provide direction to staff as appropriate.

**Summary Text:**

This report provides an update on the status of state and federal regulations and state legislation related to hydraulic fracturing (fracking), and Goleta Water District engagement in this issue since briefing the Water Management and Long Range Planning (WMLRP) Committee in June 2013.

***Regulations Development Status***

***State Regulations***

The California Department of Conservation (DOC), Division of Oil, Gas and Geothermal Resources (DOGGR) is the regulating body with jurisdiction over subsurface oil and gas activities in the state. DOGGR has been developing and publicly vetting regulations specific to fracking since December 2012, when a Discussion Draft of fracking regulations was released for public review. Using input received through the public review process, a new draft of proposed fracking regulations was developed and released on November 15, 2013. The November 15, 2013 public notice begins the formal rulemaking process, including a 60-day public comment period and public hearing. DOGGR currently plans to hold five public hearings across the state to solicit feedback on the proposed regulations, including one in Santa Maria on January 13, 2014. The state Administrative Procedures Act and

implementing regulations require the entire rulemaking process to be completed within one year of initiation.<sup>1</sup> The proposed regulations are included as Attachment 1.

The draft regulations address comments provided by the Association of California Water Agencies (ACWA) and the American Water Works Association (AWWA) in April 2013; however, AWWA and ACWA have not yet released statements or positions related to the newly released proposed regulations. Furthermore, many of the water-related recommendations for better oversight and regulation of fracking included in the April 2013 U.C. Berkeley report have been incorporated into the proposed regulations, including:<sup>2</sup>

- Clarifying the definition of “protected water” to match that of the U.S. Environmental Protection Agency (water containing less than 10,000 mg/l total dissolved solids);
- Mandatory reporting of water use, including volume, source, specific composition, and disposition of water associated with well stimulation;
- Groundwater testing and monitoring requirements before and after every fracking event;
- Requiring full disclosure of all chemicals used in fracking and reporting on a publicly accessible, searchable website; and
- Greater coordination among state agencies to prevent gaps in the regulation of fracking and ensure information sharing and accountability.

Pursuant to Senate Bill 4 (Pavley) (SB 4), passed by the state legislature and signed by the Governor in September 2013 (discussed further below), DOGGR is required to have regulations in place by January 2015. DOGGR has indicated emergency regulations will be in place by January 1, 2014 to ensure the major requirements of SB 4 are addressed in the interim.

Concern over the handling of well stimulation treatment fluid and permanent removal of water from the hydrologic cycle are two common themes identified in fracking-related public comment letters to the state. The proposed regulations require all fluids to be accounted for in a Spill Contingency Plan, and public disclosure of the specific composition and disposition of fluids within 60 days after well stimulation. Furthermore, the regulations require well operators to comply with requirements of the respective state agencies with jurisdiction over the location of the well, such as the Regional Water Quality Control Boards regarding water quality, and the Department of Toxic Substances Control regarding fluids transported offsite. While removal of water from the hydrologic cycle is not specifically addressed in the proposed regulations, this will likely be a topic of further discussion and possible legislation at both the state and local level given public concern and interest surrounding fracking impacts on water resources.

On November 15, 2013 DOGGR filed a Notice of Preparation for a statewide Environmental Impact Report (EIR) that will be conducted pursuant to SB 4 under the California Environmental Quality Act (CEQA) to examine the potential environmental impacts of fracking. The EIR is required to be completed by July 1, 2015.

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<sup>1</sup> Following completion of the formal rulemaking process, the adopted Hydraulic Fracturing Regulations will be added as Article 4 to Title 14 of the California Code of Regulations (Chapter 4, Subchapter 2).

<sup>2</sup> *Regulation of Hydraulic Fracturing in California: A Wastewater and Water Quality Perspective*, by the Berkeley Center for Law, Energy & the Environment, April 2013.

### *Federal Regulations*

The U.S. Department of Interior, Bureau of Land Management (BLM), the agency responsible for overseeing onshore oil and gas operations at the federal level, is currently developing regulations that would apply to fracking activities on federally owned and managed public lands and Indian Reservations.<sup>3</sup> The most recent draft rules underwent public review between May 2013 and late August 2013, and final release is still pending. Key provisions of the draft BLM regulations include post-drilling disclosure of chemicals used in fracking, improving assurances of well-bore integrity to prevent groundwater contamination, and the requirement of a waste water management plan for the water discarded as a byproduct of the drilling process. Onshore oil production in Santa Barbara County occurs predominately on private and state lands, where BLM rules would not apply.

The majority of offshore drilling in the area occurs under federal leases and therefore must comply with federal regulations. Offshore drilling in federal waters (three or more miles offshore) is regulated primarily by three federal agencies. The Bureau of Safety and Environmental Enforcement (BSEE) is responsible for permitting and inspecting offshore drilling activities; the Bureau of Ocean Energy Management (BOEM) is responsible for issuing drilling leases and conducting related environmental reviews required for the project; and the Environmental Protection Agency (EPA) is tasked with upholding the federal Clean Water Act and issuing National Pollutant Discharge Elimination System (NPDES) permits designed to protect water quality.<sup>4</sup>

These agencies have regulations in place that govern their respective responsibilities. Proposed BSEE regulatory revisions to the existing Oil and Gas Production Safety Systems document (30 CFR 250 Subpart H) are currently undergoing public review. The proposed changes do not specifically address fracking; however, they ensure the regulations keep pace with oil industry advancements and emerging safety technologies related to offshore drilling generally, such as subsea leak detection, and safety and pollution prevention equipment.

All three agencies were recently criticized for their handling of fracking activities in the coastal waters of Santa Barbara and Ventura counties. Federal documents released to the Associated Press and advocacy groups by the government show fracking has occurred 12 times off the coast of California since the late 1990's, and fracking was recently approved for existing wells in the Santa Barbara Channel, effective in 2014.

### *State Legislation*

In late September, Governor Brown signed SB 4, related to hydraulic fracturing. SB 4 applies to both fracking and acidizing, and requires a 30-day public notice prior to well stimulation, chemical disclosure, and water testing before and after fracking. While the bill contains little in the way of water usage restrictions or guidelines, SB 4 requires drillers to publicly disclose their water usage starting in 2014. This will provide improved information for assessing how fracking impacts the state's water resources, and how effectively regulators are addressing water-related issues. SB 4 also requires the state to enact a regulatory framework by 2015, which DOGGR is currently developing, as discussed above. In his signing message, Governor Brown noted that clarifying amendments, likely around the CEQA provisions of the bill, are needed and he will work with the author, Senator Pavley, to address these clarifications

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<sup>3</sup> Federally-owned and managed public lands include National Parks, National Forests, and National Wildlife Refuges.

<sup>4</sup> Section 402 of the Clean Water Act establishes the NPDES program, under which EPA may issue a permit to allow the discharge of pollutants into waters of the U.S., and set effluent limitations.

during the 2014 legislative session. SB 4 and the Governor's signing message are included as Attachment 2.

As enacted, SB 4:

- Adds Section 10783 to Section 7 of the California Water Code, including requiring the State Water Resources Control Board to develop regional model groundwater monitoring criteria by January 2015, and implement the groundwater monitoring programs by January 2016.
- Enables owners of property near fracked wells to receive notice of fracking activities and the ability to request water quality sampling.
- Requires well operators to obtain permits from DOGGR in advance of any well stimulation treatment and DOGGR to post the permits on a publicly accessible website within five days of issuing the permit.
- Requires DOGGR to develop and maintain a publicly available database where fracking activity in California can be tracked.
- Directs the Natural Resources Agency to conduct an independent scientific study evaluating the potential environmental and health risks and hazards of well stimulation treatments, including fracking and acidizing, by January 1, 2015.
- Authorizes civil penalties of between \$10,000 and \$25,000 per day against violators of the well stimulation requirements.

There has been no change in status of four other state bills related to fracking since the last update provided to the WMLRP Committee in June 2013. All pending bills have stalled in the legislature in 2013. The legislature is expected to continue working on fracking-related legislation in 2014. ACWA has taken a "watch" position on all pending fracking legislation in anticipation of the release of the updated DOGGR regulations. The ACWA Legislative Committee will review proposals as they develop in 2014.

### ***Goleta Water District Engagement***

Goleta Water District continues to closely track the status of fracking regulations, legislation, and local activity. In August 2013, staff attended the ACWA 2013 Regulatory Summit, at which Mark Nechodom, the state DOC Director, was a featured speaker. Mr. Nechodom discussed public perceptions of fracking, the DOC's role in regulating oil and gas activities, and status of the development of state regulations. Consistent with past statements, Mr. Nechodom indicated many of the water-related recommendations provided during the discussion draft public review period were being incorporated into the updated regulations.

The District is a member of the ACWA Joint Water Quality/Groundwater Hydraulic Fracturing Workgroup. ACWA plans to convene the Workgroup to discuss the newly released proposed regulations, although a date for the meeting has not yet been set. Through this workgroup, staff will work to ensure final regulations and legislation approved by the State support the District's ability to protect and use local water supplies.

**Background:**

The WMLRP Committee received briefings on fracking on March 21 and June 20, 2013. Fracking is the process of injecting a mix of water, chemicals and sand-like materials into deep underground rock formations to release trapped oil and gas. Currently, County staff is not aware of any hydraulic fracturing operations underway in Santa Barbara County, which is consistent with data provided in the State Water Resources Control Board online mapping database. Moreover, no fracking permits have been applied for or issued by the County since the Board of Supervisors' adoption of new regulations in 2011.<sup>5</sup> However, fracking has reportedly occurred in and near the Los Padres National Forest just east of Santa Barbara County, in Ventura County. A Santa Barbara-based advocacy group discovered the fracking operations through government documents, and reported in October 2013 that 13 wells had been fracked in the Sespe Oil Field since June 2012. Additionally, according to recent articles from the Associated Press citing documents released by the federal government through the Freedom of Information Act, BSEE has reportedly approved offshore fracking operations in the Santa Barbara Channel scheduled to occur in 2014.

**Fiscal Analysis:**

The recommended action has no fiscal impact.

**Attachments:**

Attachment 1: Proposed State Fracking Regulations

Attachment 2: Governor's Signing Message and Senate Bill 4 (Pavley)

**Authored by:**

Brooke Welch, Sr. Water Resources Analyst

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<sup>5</sup> In December 2011, the County Board of Supervisors approved amendments to the County Land Use and Development Code and the Article II Coastal Zoning Ordinance to add a definition for hydraulic fracturing, and specify the appropriate permit requirements for hydraulic fracturing of any new or existing well.

# **Attachment 1**

## Proposed State Fracking Regulations

# **SB 4 WELL STIMULATION TREATMENT REGULATIONS**

## **TEXT OF PROPOSED REGULATIONS**

Added text is shown in underline.

### **CHAPTER 4. DEVELOPMENT, REGULATION, AND CONSERVATION OF OIL AND GAS RESOURCES**

#### **Subchapter 2. Environmental Protection**

##### **Article 1. General.**

###### **1751. Single-Project Authorization.**

(a) For the purposes of this section, "single-project authorization" shall mean a single Division approval for multiple applications for permits to perform well stimulation treatments and/or notices of intent to drill or rework wells.

(b) A request for a single-project authorization shall include:

(1) Identification of each of the applications and notices that are part of the request;

(2) The applications and notices that comprise the request for a single-project authorization.

(c) The Division will specify what operations are approved by a single-project authorization and the conditions under which the operations are approved.

(d) Operations approved by a single-project authorization that have not commenced within one year shall not be commenced without first obtaining a new approval for those operations from the Division.

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106, 3160, and 3203 Public Resources Code.

##### **Article 2. Definitions**

###### **1761. Well Stimulation and Underground Injection Projects.**

(a) The following definitions are applicable to this chapter:

(1) "Well stimulation treatment" means a treatment of a well designed to enhance oil and gas production or recovery by increasing the permeability of the formation. Well stimulation is a short term and non-continual process for the purposes of opening and stimulating channels for the flow of hydrocarbons. Examples of well stimulation treatments include hydraulic fracturing, acid fracturing, and acid matrix stimulation. Well stimulation treatment does not include routine well cleanout work; routine well maintenance; routine treatment for the purpose of removal of formation damage due to

drilling; bottom hole pressure surveys; routine activities that do not affect the integrity of the well or the formation; the removal of scale or precipitate from the perforations, casing, or tubing; or a treatment that does not penetrate into the formation more than 36 inches from the wellbore.

(2) “Underground injection project” or “subsurface injection or disposal project” means sustained or continual injection into one or more wells over an extended period in order to add fluid to a zone for the purpose of enhanced oil recovery, disposal, or storage. Examples of underground injection projects include waterflood injection, steamflood injection, cyclic steam injection, injection disposal, and gas storage projects.

(b) Well stimulation treatments and underground injection projects are two distinct kinds of oil and gas production processes. Unless a regulation expressly addresses both well stimulation and underground injection projects,

(1) Regulations regarding well stimulation treatments do not apply to underground injection projects; and

(2) Regulations regarding underground injection projects do not apply to well stimulation.

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Section 3106, 3157, and 3160, Public Resources Code.

#### **Article 4. Well Stimulation Treatments**

##### **1780. Purpose, Scope, and Applicability.**

(a) The purpose of this article is to set forth regulations governing well stimulation treatments, as defined in Section 1761, subdivision (a)(1), except that the requirements of this article do not apply to acid matrix stimulation treatments that use an acid concentration of 7% or less. Nor is an operator required to obtain a permit under Public Resources Code section 3160, subdivision (d), prior to performing an acid matrix stimulation treatment that uses an acid concentration of 7% or less.

(b) Well stimulation treatments are not subsurface injection or disposal projects and are not subject to Sections 1724.6 through 1724.10. This article does not apply to underground injection projects.

(c) For purposes of this article, a well stimulation treatment commences when well stimulation fluid is pumped into the well, and ends when the well stimulation treatment equipment is disconnected from the well.

NOTE: Authority cited: Section 3013 and 3160, Public Resources Code. Reference: Section 3106 and 3160, Public Resources Code.

##### **1781. Definitions.**

The following definition shall govern this article:

(a) “**Acid matrix stimulation treatment**” means an acid treatment conducted at pressures lower than the applied pressure necessary to fracture the underground geologic formation.



(b) “**Acid well stimulation treatment**” means a well stimulation treatment that uses, in whole or in part, the application of one or more acids to the well or underground geologic formation. The acid well stimulation treatment may be at any applied pressure and may be used in combination with hydraulic fracturing treatments or other well stimulation treatments. Acid well stimulation treatments include acid matrix stimulation treatments and acid fracturing treatments.

(c) “**Acid stimulation treatment fluid**” means one or more base fluids mixed with physical and chemical additives for the purpose of performing an acid well stimulation treatment.

(d) “**Additive**” means a substance or combination of substances added to a base fluid for purposes of preparing well stimulation treatment fluid, including, but not limited to, acid stimulation treatment fluid and hydraulic fracturing fluid. An additive may serve additional purposes beyond the transmission of hydraulic pressure to the geologic formation. An additive may be of any phase and may include proppants.

(e) “**Base fluid**” means the continuous phase fluid used in the makeup of a well stimulation treatment fluid. The continuous phase fluid may include, but is not limited to, water, and may be a liquid or a hydrocarbon or nonhydrocarbon gas. A well stimulation treatment may use more than one base fluid.

(f) “**Chemical Disclosure Registry**” means the Internet Web site developed by the Division for the purpose of reporting the information required under Section 1788. Until the Division has completed development of the reporting website, “Chemical Disclosure Registry” shall mean the chemical registry Internet Web site known as fracfocus.org developed by the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission, or another publicly accessible information Internet Web site that is designated by the Division.

(g) “**Flowback fluid**” means the fluid recovered from the treated well before the commencement of oil and gas production from that well following a well stimulation treatment. The flowback fluid may include materials of any phase.

(h) “**Hydraulic fracturing**” means a well stimulation treatment that, in whole or in part, includes the pressurized injection of hydraulic fracturing fluid into an underground geologic formation in order to fracture the formation, thereby causing or enhancing, for the purposes of this division, the production of oil or gas from a well.

(i) “**Hydraulic fracturing fluid**” means one or more base fluids mixed with physical and chemical additives for the purpose of hydraulic fracturing.

(j) “**Proppants**” means materials inserted or injected into the underground geologic formation that are intended to prevent fractures from closing.

(k) “**Protected water**” means water outside of a hydrocarbon zone that contains no more than 10,000 mg/l total dissolved solids.

(l) “**Regional Water Board**” means the Regional Water Quality Control Board with jurisdiction over the location of a well subject to well stimulation treatment.

(m) “**Surface property owner**” means the owner of real property as shown on the latest equalized assessment roll or, if more recent information than the information contained on the assessment roll is available, the owner of record according to the county assessor or tax collector.

(n) “Well stimulation treatment fluid” means a base fluid mixed with physical and chemical additives, which may include acid, for the purpose of a well stimulation treatment. A well stimulation treatment may include more than one well stimulation treatment fluid. Well stimulation treatment fluids include, but are not limited to, hydraulic fracturing fluids and acid stimulation treatment fluids.

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106, 3150, 3151, 3152, 3153, 3154, 3156, 3158, 3159, and 3160, Public Resources Code.

### **1782. General Well Stimulation Treatment Requirements.**

(a) When a well stimulation treatment is performed, the operator shall ensure that all of the following:

(1) Casing is sufficiently cemented or otherwise anchored in the hole in order to effectively control the well at all times;

(2) Geologic and hydrologic isolation of the oil and gas formation are maintained during and following the well stimulation treatment;

(3) All potentially productive zones, zones capable of over-pressurizing the surface casing annulus, or corrosive zones be isolated and sealed off to the extent that such isolation is necessary to prevent vertical migration of fluids or gases behind the casing;

(4) All well stimulation treatment fluids are directed into the zone(s) of interest;

(5) The wellbore’s mechanical integrity is tested and maintained;

(6) The well stimulation treat fluids used are of known quantity and description for reporting and disclosure as required pursuant to this Article; and

(7) The well stimulation treatment fluid is not of a concentration level that will damage the well casing, tubing, cement, or other well equipment, or would otherwise cause degradation of the well’s mechanical integrity during the treatment process.

(b) In addition to specific methods set forth in these regulations, to achieve the objectives of this section, the operator shall follow the intent of all applicable well construction requirements, use good engineering practices, and employ best industry standards.

NOTE: Authority cited: Section 3013, Public Resources Code. Reference: Section 3106, Public Resources Code.

### **1783. Application for Permit to Perform Well Stimulation Treatment.**

(a) A well stimulation treatment or repeat well stimulation treatment shall not commence without a valid permit approved by the Division and shall be done in accordance with the conditions of the Division’s approval.

(b) An application for a permit to conduct well stimulation operations shall include all of the information listed in Section 1783.1 and shall be submitted electronically to the Division on a digital form specified by the Division and available on the Division’s public internet Web site at <http://www.conservation.ca.gov/DOG/Pages/Index.aspx>.

(c) The operator shall notify the Division at least 72 hours prior to commencing well stimulation so that Division staff may witness. Three hours prior to commencing, the operator shall confirm with the Division that the well stimulation treatment is proceeding.

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106 and 3160, Public Resources Code.

**1783.1. Contents of Application for Permit to Perform Well Stimulation Treatment.**

(a) An application for a permit to perform a well stimulation treatment shall include the following:

- (1) Operator's name;
- (2) Name and telephone number of person filing the form;
- (3) Name of person to contact with technical questions regarding operations;
- (4) Telephone number and email address of person to contact with technical questions regarding operations;
- (5) Lease name and number of the well;
- (6) Location of the well, submitted as a non-projected, Latitude Longitude, in the General Coordinate System (GCS) NAD83.
- (7) API number assigned to the well by the Division;
- (8) Type of well;
- (9) Name of the oil field;
- (10) County in which the well is located;
- (11) The time period during which the well stimulation treatment is planned to occur.
- (12) For directionally drilled wells, the proposed coordinates (from surface location), the true vertical depth at total depth, and the wellbore path;
- (13) Estimated true vertical depth of the well;
- (14) Name and vertical depth of the productive horizon where well stimulation treatment will occur;
- (15) The planned location of the well stimulation treatment on the well bore, the estimated length, height, and direction of the induced fractures or other planned modification, if any, and the location of existing wells, including plugged and abandoned wells, that may be impacted by these fractures and modifications;
- (16) Depth of the base of protected water;
- (17) Anticipated volume, rate, and pressures of fluid to be injected;
- (18) Identification of all wells that have previously been hydraulically fractured in the same production horizon within the area of twice the anticipated fracture radius;
- (19) Identification of where in the operator's Spill Contingency Plan handling of well stimulation fluid and additives has been addressed;
- (20) The cement evaluation required under Section 1784(a)(1);
- (21) The well stimulation treatment radius analysis required under Section 1784(a)(2), including identification of all water within the area of the well stimulation treatment radius analysis, and the names and API numbers of all wells within the area of the well stimulation treatment radius analysis;
- (22) The well stimulation treatment design required under Section 1784(a)(3);

(23) A water management plan that includes an estimate of the amount of water to be used in the treatment, an estimate of water to be recycled following the well stimulation treatment, the anticipated source of the water to be used in the treatment, and the anticipated disposal method that will be used for the recovered water in the flowback fluid from the treatment that is not produced water that would be reported pursuant to Section 3227;

(24) The estimated amount of treatment-generated waste materials that are not addressed by the water management plan, and the anticipated disposal method for the waste materials;

(25) Certification from the Regional Water Board that the well subject to the well stimulation treatment is covered by a well-specific, field-wide, or regional ground water monitoring plan developed in accordance with Water Code section 10783; and

(26) A complete list of the names, Chemical Abstract Service numbers, and estimated concentrations, in percent by mass, of each and every chemical constituent of the well stimulation fluids anticipated to be used in the treatment. If a Chemical Abstract Service number does not exist for a chemical constituent, another unique identifier may be used, if available. A claim of trade secret protection for the information required under this section shall be handled in the manner specified under Public Resources Code section 3160, subdivision (j).

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106 and 3160, Public Resources Code; Section 10783, Water Code.

### **1783.2. Copy of Well Stimulation Permit; Notice of Availability for Water Testing, Sampling.**

(a) At least 30 days in advance of commencing well stimulation treatment, the operator of any oil or gas well receiving a well stimulation treatment permit from the Division is required to provide to surface property owners and tenants of legally recognized parcels of land situated within a 1500 foot radius of the wellhead of any such well, or within 500 feet of the horizontal projection of the subsurface parts of any such well, the following:

(1) A copy of the well stimulation treatment permit;

(2) Notice of the availability for water sampling and testing of any water well suitable for drinking or irrigation purposes; and

(3) Notice of the availability for water sampling and testing of any surface water suitable for drinking or irrigation purposes.

(b) For the purposes of this section, "tenant" means a person or entity possessing the right to occupy a legally recognized parcel, or portion thereof, by way of a valid written agreement.

(c) For the purposes of this section, "horizontal projection" means the surface representation of the horizontal path of the wellbore.

NOTE: Authority cited: Section 3013 and 3160, Public Resources Code. Reference: Section 3106 and 3160, Public Resources Code.

### **1783.3. Duty to Hire Independent Third Party to Provide Copy of Permit, Notice of Water Testing, Sampling.**

(a) It is the operator's responsibility to identify the surface property owners and tenants to whom a copy of the well stimulation treatment permit must be provided and notification is required under Section 1783.2. To fulfill this responsibility, the operator or owner must hire an independent person or entity to provide a copy of the permit and the notification required.

(b) Any person or entity hired by the owner of a well to provide a copy of the permit and notice in accordance with this regulation shall, after providing such notice, deliver to the Division, in writing, the following:

(1) The names of the property owners or tenants identified;

(2) The method by which the copy of the permit was provided, and the date on which the copy of the permit was provided; and

(3) The method by which the notice of the availability of water sampling and testing was provided, and the date on which the notice was provided.

(c) Information about the availability of water quality testing may be included in the notification or the notification may reference a website with further information about testing options.

NOTE: Authority cited: Section 3013 and 3160, Public Resources Code. Reference: Section 3106 and 3160, Public Resources Code.

### **1784. Evaluation Prior to Well Stimulation Treatment.**

(a) The operator shall do all of the following prior to commencing or recommencing well stimulation treatment operations:

(1) Allowing at least 48 hours to elapse after cement placement, the operator shall run a radial cement evaluation log or other cement evaluation method that is approved by the Division and capable of demonstrating adequate cementing. If the quality of the cement outside of the production casing is not sufficient to ensure the geologic and hydrologic isolation of the oil and gas formation during and following well stimulation treatment, then the operator must develop a plan to remediate the cement and obtain approval from the Division for the remediation plan prior to proceeding. The operator is only required to evaluate the cement that is required to be in place under Section 1722.4. The Division may waive the requirement of doing a cement evaluation if the supervisor is satisfied that, based on geologic and engineering information available from previous drilling or producing operations in the area where the well stimulation treatment will occur, well construction and cementing methods have been established that ensure that there will be no voids in the annular space of the well.

(2) The operator shall conduct a well stimulation treatment radius analysis to ensure the geologic and hydrologic isolation of the oil and gas formation during and following well stimulation treatment.

(i) The operator shall utilize modelling approved by the Division that will effectively simulate the projected well stimulation treatment area of influence within the design limits of the projected well stimulation treatment operations.

(ii) The well stimulation treatment radius analysis shall include a review of all wells and faults (active or inactive) within a radius of twice the anticipated well stimulation treatment length from each point of well stimulation treatment to ensure the geologic and hydrologic isolation of the oil and gas formation during and following well stimulation.

(iii) If a radius of five times the anticipated well stimulation treatment length from a point of treatment extends beyond the productive horizon being evaluated for possible well stimulation treatment, then the well stimulation treatment radius analysis shall include a review of the geological formations adjacent to the productive horizon. The operator shall assess the mechanical rock properties, including permeability, relative hardness (using Young's Modulus), relative elasticity (using Poisson's Ratio), and other relevant characteristics of the geological formations to determine whether the geological formations will ensure the geologic and hydrologic isolation of the oil and gas formation during and following well stimulation.

(3) Utilizing the well stimulation treatment radius analysis conducted pursuant to subsection (a)(4), the operator shall design the well stimulation treatment so as to ensure that the well stimulation treatment fluids or hydrocarbons do not migrate and remain geologically and hydrologically isolated to the hydrocarbon formation.

NOTE: Authority cited: Section 3013 and 3160, Public Resources Code. Reference: Section 3106 and 3160, Public Resources Code.

#### **1784.1. Pressure Testing Prior to Well Stimulation Treatment.**

(a) The operator shall do all of the following not more than 24 hours prior to commencing or recommencing well stimulation treatment:

(1) All cemented casing strings and all tubing strings to be utilized in the well stimulation treatment operations shall be pressure tested for at least 30 minutes at a pressure equal to 125% of the maximum surface pressure anticipated during the well stimulation treatment . If during testing there is a pressure drop of 10% or more from the original test pressure, then the tested casing or tubing shall not be used until the cause of the pressure drop is identified and corrected. No casing or tubing shall be used unless it has been successfully tested pursuant to this section.

(2) All surface equipment to be utilized for well stimulation treatment shall be rigged up as designed. The pump, and all equipment downstream from the pump, shall be pressure tested at a pressure equal to 125% of the maximum surface pressure anticipated during the well stimulation treatment.

(b) The operator shall notify the Division at least 24 hours prior to conducting the pressure testing required under this section so that Division staff may witness.

NOTE: Authority cited: Section 3013 and 3160, Public Resources Code. Reference: Section 3106 and 3160, Public Resources Code.

#### **1785. Monitoring During Well Stimulation Treatment Operations.**

(a) The operator shall continuously monitor all of the following parameters during the well stimulation treatment, if applicable:

(1) Surface injection pressure;

(2) Slurry rate;

(3) Proppant concentration;

(4) Fluid rate; and

(5) All annuli pressures.

(b) The operator shall terminate the well stimulation treatment and immediately provide the collected data to the Division if any of the following occur:

(1) A production-surface casing annulus pressure change of 20% or greater than the calculated pressure increase due to pressure and/or temperature expansion;

(2) Pressure exceeding 90% of the API rated minimum internal yield on any casing string in communication with the well stimulation treatment;

(3) The operator has reason to suspect any potential breach in the production casing, production casing cement, or isolation of any sources of protected water.

(c) If any of the events listed in subdivision (b) occur, then the operator shall perform diagnostic testing on the well to determine whether a breach has occurred. Diagnostic testing shall be done as soon as is reasonably practical. The Division shall be notified when diagnostic testing is being done so that Division staff may witness the testing. All diagnostic testing results shall be provided to the Division.

(d) If diagnostic testing reveals that a breach has occurred, then the operator shall immediately shut-in the well, isolate the perforated interval, and notify the Division and the Regional Water Board with all of the following information:

(1) A description of the activities leading up to the well failure.

(2) Depth interval of the well failure and methods used to determine the depth interval.

(3) An exact description of the chemical constituents of the well stimulation treatment fluid, or of the fluid that is most representative of the fluid composition in the well at the time of the well failure, including:

(A) Total dissolved solids;

(B) Chloride, sodium, and all organic or inorganic chemicals listed in the tables in California Code of Regulations, title 14, sections 64431 and 64444; and

(C) Gross alpha, gross beta, uranium, tritium, radium 226+228, and all other radionuclides.

(4) An estimate of the volume of fluid lost during well failure.

(5) If available, groundwater quality data for the protected water closest to the well failure.

(e) Groundwater quality data submitted to the Regional Water Boards under subsection (d) shall be in an electronic format that follows the guidelines detailed in California Code of Regulations, title 23, chapter 30.

(f) If the surface casing annulus is not open to atmospheric pressure, then the surface casing pressures shall be monitored with a gauge and pressure relief device. The maximum set pressure on the relief device shall be the lowest of the following and well stimulation treatment shall be terminated if pressures in excess of the maximum set pressure are observed in the surface casing annulus:

(1) A pressure equal to: 0.70 times 0.433 times the true vertical depth of the surface casing shoe (expressed in feet);

- (2) 70% of the API rated minimum internal yield for the surface casing; or
- (3) A pressure change that is 20% or greater than the calculated pressure increase due to pressure and/or temperature expansion.

NOTE: Authority cited: Section 3013 and 3160, Public Resources Code. Reference: Section 3106 and 3160, Public Resources Code.

**1786. Storage and Handling of Well Stimulation Treatment Fluids.**

(a) Operators shall adhere to the following requirements for the storage and handling of well stimulation treatment fluid, additives, and produced water from a well that has had a well stimulation treatment:

(1) Fluids shall be stored in compliance with the secondary containment requirements of Section 1773.1, except that secondary containment is not required for portable or temporary production facilities.

(2) Operators shall be in compliance with all applicable testing, inspection, and maintenance requirements for production facilities containing well stimulation treatment fluids.

(3) Fluids shall be accounted for in the operator's Spill Contingency Plan;

(4) Fluids shall be stored in containers and shall not be stored in sumps or pits;

(5) In the event of an unauthorized release, the operator shall immediately notify the appropriate response entities for the location and the type of fluids involved, as required by all applicable federal, state, and local laws and regulations; and shall perform clean up and remediation of the area, as required by all applicable federal, state, and local laws and regulations.

(6) Within 5 days of the occurrence of an unauthorized release, the operator shall provide the Division a written report that includes:

(A) A description of the activities leading up to the release;

(B) The type and volumes of fluid released;

(C) The cause(s) of release;

(D) Action taken to stop, control, and respond to the release; and

(E) Steps taken and any changes in operational procedures implemented by the operator to prevent future releases.

(7) Operators shall be in compliance with all applicable requirements of the Regional Water Board, the Department of Toxic Substances Control, and the Air Quality Management District with jurisdiction over the location of the well.

(8) If fluids will be transported offsite and not injected into a well regulated by the Division under Sections 1724.6 through 1724.10, then the fluids shall be evaluated to determine if they are hazardous waste, as defined by Department of Toxic Substances Control in its regulations.

NOTE: Authority cited: Section 3013 and 3160, Public Resources Code. Reference: Section 3106 and 3160, Public Resources Code.



**1787. Well Monitoring After Well Stimulation Treatment.**

(a) Operators shall monitor each producing well that has had a well stimulation treatment to identify any potential problems with a well that could endanger any underground source of protected water or hydrocarbon zone. If there is any indication of a well failure, the operator shall immediately notify the Division and the Regional Water Board and perform diagnostic testing on the well to determine whether a well failure has actually occurred. If the testing indicates that a well failure has occurred, then the operator shall immediately take all appropriate measures to prevent contamination of all underground sources of protected water, hydrocarbon zones, and all surface waters in the area of the well and shall provide the Division and the Regional Water Board with the information described in section 1785(d).

(b) Operators shall adhere to the following requirements for a well that has had a well stimulation treatment:

(1) The production pressure of the well shall be monitored at least once every two days for the first thirty days after the well stimulation treatment and on a monthly basis thereafter. Information regarding production pressures shall be reported to the Division on a monthly basis.

(2) The well shall be monitored at least once every two days for the first thirty days after the well stimulation treatment and on a monthly basis thereafter to determine the amount of gas, oil, and water produced, including the volume of readily identifiable well stimulation treatment fluid flowback. The operator shall report the information to the Division on a monthly basis for 5 years or until there has been a 95% reduction in well stimulation treatment fluid contained in the produced fluid, whichever comes first.

(3) The annular pressures of the well shall be reported to the Division annually. It shall be immediately reported to the Division if annular pressure exceeds 70% of the API rated minimum internal yield or collapse strength of casing, or if surface casing pressures exceed a pressure equal to: 0.70 times 0.433 times the true vertical depth of the surface casing shoe (expressed in feet).

(4) The annular valve shall be kept accessible from the surface or left open and plumbed to the surface with a working pressure gauge unless it has been demonstrated to the Division's satisfaction that there are no voids in the annular space.

(5) A properly functioning pressure relief device shall be installed on the annulus between the surface casing and the production casing, or, if intermediate casing is set, on the annuli between the surface casing and the intermediate casing and the production casing. This requirement may be waived by the Division, if the operator demonstrates to the Division's satisfaction that the installation of a pressure relief device is unnecessary based on technical analysis and/or operating experience in the area.

(6) If a pressure relief device is installed, then all pressure releases from the device shall be reported to the Division within 24 hours of detection. The maximum set pressure of a surface casing pressure relief device shall be the lowest of the following:

(A) A pressure equal to: 0.70 times 0.433 times the true vertical depth of the surface casing shoe (expressed in feet);

(B) 70% of the API rated minimum internal yield for the surface casing; or

(C) A pressure change that is 20% or greater than the calculated pressure increase due to pressure and/or temperature expansion

NOTE: Authority cited: Section 3013 and 3160, Public Resources Code. Reference: Section 3106 and 3160, Public Resources Code.

**1788. Required Public Disclosures.**

(a) Except as provided in subdivision (c), within 60 days after the cessation of a well stimulation treatment, the operator shall post to the Chemical Disclosure Registry all of the following information:

- (1) Operator's name;
- (2) API number assigned to the well by the Division;
- (3) Lease name and number of the well;
- (4) Location of the well, submitted as a non-projected, Latitude Longitude, in the General Coordinate System (GCS) NAD83.
- (5) County in which the well is located;
- (6) Date that the well stimulation treatment occurred;
- (7) True vertical depth of the well;
- (8) Name and vertical depth of the productive horizon where well stimulation treatment occurred;
- (9) The trade name, supplier, concentration, and a brief description of the intended purpose of each additive contained in the well stimulation fluids used;
- (10) The total volume of base fluid used during the well stimulation treatment;
- (11) Identification of whether the base fluid is water suitable for irrigation or domestic purposes, water not suitable for irrigation or domestic purposes, or a fluid other than water;
- (12) The source, volume, and specific composition and disposition of all water associated with the well stimulation treatment, including, but not limited to, water used as base fluid and water recovered from the well following the well stimulation treatment that is not otherwise reported as produced water pursuant to Section 3227;
- (13) Identification of any reuse of treated or untreated water for well stimulation treatments and well stimulation treatment-related activities;
- (14) The specific composition and disposition of all well stimulation treatment fluids, including waste fluids, other than water;
- (15) Any radiological components or tracers injected into the well as part of the well stimulation treatment, a description of the recovery method, if any, for those components or tracers, the recovery rate, and specific disposal information for recovered components or tracers;
- (16) The radioactivity of the recovered well stimulation fluids;
- (17) The location of the portion of the well subject to the well stimulation treatment and the extent of the fracturing or other modification, if any, surrounding the well induced by the treatment.
- (18) The estimated volume of well stimulation treatment fluid that has been recovered; and

(19) A complete list of the names, Chemical Abstract Service numbers, and maximum concentration, in percent by mass, of each and every chemical constituent of the well stimulation treatment fluids used. If a Chemical Abstract Service number does not exist for a chemical constituent, the operator may provide another unique identifier, if available.

(b) If the Chemical Disclosure Registry is unable to receive information required to be reported under this section, then the operator shall provide the information directly to the Division.

(c) Except for items (1) through (6) of subsection (a), operators are not required to post information to the Chemical Disclosure Registry if the information is found in a well record that the Division has determined is not public record, pursuant to Public Resources Code section 3234. If information listed in subsection (a) is not posted to the Chemical Disclosure Registry on this basis, then the operator shall inform the Division in writing, specifying the information that is not being publicly disclosed. It is the operator's responsibility to post the information to the Chemical Disclosure Registry as soon as the information becomes public record under Public Resources Code section 3234.

(d) A claim of trade secret protection for the information required to be disclosed under this section shall be handled in the manner specified under Public Resources Code section 3160, subdivision (j).

(e) Groundwater quality data reported under this section shall also be submitted to the Regional Water Board in an electronic format that follows the guidelines detailed in California Code of Regulations, title 23, chapter 30.

NOTE: Authority cited: Section 3013 and 3160, Public Resources Code. Reference: Sections 3106, 3160, and 3234, Public Resources Code.

### **1789. Post-Well Stimulation Treatment Report.**

(a) Within 60 days after the cessation of a well stimulation treatment, the operator shall submit a report to the Division describing:

(1) The results of the well stimulation treatment;

(2) The pressures encountered during the well stimulation treatment; and

(3) How the actual well stimulation treatment differs from what was anticipated in the well stimulation treatment design that was prepared under Section 1784(a)(5).

(b) If data maintained by the U.S. Geological Survey indicate that, since the commencement of well stimulation treatment, an earthquake of magnitude 2.0 or greater has occurred in the area of the well stimulation treatment radius analysis required under Section 1784(a)(4), then the occurrence of that earthquake shall be noted in the report prepared under subsection (a).

NOTE: Authority cited: Section 3013 and 3160, Public Resources Code. Reference: Section 3106 and 3160, Public Resources Code.

# **Attachment 2**

Governor's Signing Message and  
Senate Bill 4



OFFICE OF THE GOVERNOR

SEP 20 2013

To the Members of the California State Senate:

I am signing Senate Bill 4, which establishes strong environmental protections and transparency requirements for hydraulic fracturing and other well stimulation operations.

I am also directing the Department of Conservation, when implementing the bill, to develop an efficient permitting program for well stimulation activities that groups permits together based on factors such as known geologic conditions and environmental impacts, while providing for more particularized review in other situations when necessary.

The bill needs some clarifying amendments and I will work with the author in making those changes next year.

Sincerely,

Edmund G. Brown Jr.

A handwritten signature in black ink that reads "Edmund G. Brown Jr." with a large, stylized flourish at the end.

## Senate Bill No. 4

### CHAPTER 313

An act to amend Sections 3213, 3215, 3236.5, and 3401 of, and to add Article 3 (commencing with Section 3150) to Chapter 1 of Division 3 of, the Public Resources Code, and to add Section 10783 to the Water Code, relating to oil and gas.

[ Approved by Governor September 20, 2013.  
Filed with Secretary of State September 20, 2013. ]

#### LEGISLATIVE COUNSEL'S DIGEST

SB 4, Pavley. Oil and gas: well stimulation.

(1) Under existing law, the Division of Oil, Gas, and Geothermal Resources in the Department of Conservation, or the division, regulates the drilling, operation, maintenance, and abandonment of oil and gas wells in the state. The State Oil and Gas Supervisor, or supervisor, supervises the drilling, operation, maintenance, and abandonment of wells and the operation, maintenance, and removal or abandonment of tanks and facilities related to oil and gas production within an oil and gas field regarding safety and environmental damage. Existing law requires an operator of a well, before commencing the work of drilling the well, to obtain approval from the supervisor or district deputy. Existing law requires the owner or operator of a well to keep, or cause to be kept, a careful and accurate log, core record, and history of the drilling of the well. Within 60 days after the date of cessation of drilling, rework, or abandonment operations, the owner or operator is required to file with the district deputy certain information, including the history of work performed. Under existing law, a person who violates any prohibition specific to the regulation of oil or gas operations is guilty of a misdemeanor.

This bill would define, among other things, the terms well stimulation treatment, hydraulic fracturing, and hydraulic fracturing fluid. The bill would require the Secretary of the Natural Resources Agency, on or before January 1, 2015, to cause to be conducted, and completed, an independent scientific study on well stimulation treatments, including acid well stimulation and hydraulic fracturing treatments. The bill would require an owner or operator of a well to record and include all data on acid treatments and well stimulation treatments, as specified. The bill would require the division, in consultation with the Department of Toxic Substances Control, the State Air Resources Board, the State Water Resources Control Board, the Department of Resources Recycling and Recovery, and any local air districts and regional water quality control boards in areas where well stimulation treatments may occur, on or before January 1, 2015, to adopt rules and regulations specific to well stimulation, including governing the construction of wells and well casings and full disclosure of the composition and disposition of well stimulation fluids, and would authorize the division to allow well stimulation treatments if specific conditions are met. The bill would require an operator to apply for a permit, as specified, with the supervisor or district deputy, prior to performing a well stimulation treatment of a well and would prohibit the operator from either conducting a new well stimulation treatment or repeating a well stimulation treatment without a valid, approved permit. The bill would prohibit the approval of a permit application that is incomplete. The bill would require the division, within 5 business days of issuing a permit to commence a well stimulation treatment, to provide a copy to specific boards and entities and to post the permit on a publicly accessible portion of its Internet Web site. The bill would provide that the well stimulation treatment permit expires one year from the date that a permit is issued. The bill would require the division to perform random periodic spot check inspections during well stimulation treatments, as specified. The bill would require the Secretary of the Natural Resources Agency to notify various legislative committees on the progress of the independent scientific study on well stimulation and related activities, as specified, until the study is completed and peer reviewed by independent scientific experts. The bill would require the operator to provide a copy of the approved well stimulation treatment permit to specified tenants and property owners at least 30 days prior to commencing a well stimulation treatment. The bill would require the operator to provide notice to the division at least 72 hours prior to the actual start of a well stimulation treatment in order for the division to witness the treatment. The bill would require the supplier, as defined, of the well stimulation treatment to provide to the operator, within 30 days following the conclusion of the treatment, certain information regarding the well stimulation fluid. The bill would require the operator, within 60 days of the cessation of a well stimulation treatment, to post or cause to have posted on an Internet Web site accessible to the public specified information on the well stimulation fluid, as specified. The bill would require the division to commence a process to develop an Internet Web site for operators to report specific information related to well stimulation treatments and would require the Internet Web site to be operational no later than January 1, 2016. The bill would authorize the division to direct reporting to an alternative Internet Web site, as prescribed, and would require the division to obtain the data reported to the alternative Internet Web site and make it

available to the public, as specified. The bill would provide that where the division shares jurisdiction over a well with a federal entity, the division's rules and regulations apply in addition to all applicable federal law and regulations. The bill would require a supplier claiming trade secret protection for the chemical composition of additives used in a well stimulation treatment to disclose the composition to the division, in conjunction with a well stimulation treatment permit application, as specified, but would, with certain exceptions, prohibit those with access to the trade secret from disclosing it. Because this bill would create a new crime, it would impose a state-mandated local program.

(2) Under existing law, a person who violates certain statutes or regulations relating to oil and gas well operations is subject to a civil penalty not to exceed \$25,000 for each violation. This bill would make persons who violate specified provisions relating to well stimulation treatments subject to a civil penalty of not less than \$10,000 and not to exceed \$25,000 per day per violation.

(3) Existing law imposes an annual charge upon each person operating or owning an interest in an oil or gas well in respect to the production of the well which charge is payable to the Treasurer for deposit into the Oil, Gas, and Geothermal Administrative Fund. Existing law further requires that specific moneys from charges levied, assessed, and collected upon the properties of every person operating or owning an interest in the production of a well to be used exclusively, upon appropriation, for the support and maintenance of the department charged with the supervision of oil and gas operations. This bill would allow the moneys described above to be used for all costs associated with (A) well stimulation treatments, including scientific studies required to evaluate the treatment, inspections, and any air and water quality sampling, monitoring, and testing performed by public entities, and (B) the costs of the State Water Resources Control Board and the regional water quality control boards in carrying out specific responsibilities relating to well stimulation and groundwater monitoring, as specified.

This bill would require the supervisor, on or before January 1, 2016, and annually thereafter, to transmit to the Legislature and make available publicly a comprehensive report on well stimulation in the exploration and production of oil and gas resources in the state.

(4) Existing law, the Groundwater Quality Monitoring Act of 2001, requires the State Water Resources Control Board to integrate existing monitoring programs and design new program elements, as necessary, to establish a comprehensive monitoring program capable of assessing each groundwater basin in the state through direct and other statistically reliable sampling approaches.

This bill would require the state board, on or before July 1, 2015, to develop a groundwater monitoring model criteria, as specified, to be implemented either on a well-by-well basis or on a regional scale, on how to conduct appropriate monitoring on individual oil and gas wells subject to a well stimulation treatment in order to protect all waters designated for beneficial uses and prioritize the monitoring of groundwater that is or has the potential to be a source of drinking water.

(5) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement. This bill would provide that no reimbursement is required by this act for a specified reason.

## DIGEST KEY

Vote: MAJORITY Appropriation: NO Fiscal Committee: YES Local Program: YES

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## BILL TEXT

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

### SECTION 1.

The Legislature finds and declares all of the following:

- (a) The hydraulic fracturing of oil and gas wells in combination with technological advances in oil and gas well drilling are spurring oil and gas extraction and exploration in California. Other well stimulation treatments, in addition to hydraulic fracturing, are also critical to boosting oil and gas production.
- (b) Insufficient information is available to fully assess the science of the practice of hydraulic fracturing and other well stimulation treatment technologies in California, including environmental, occupational, and public health hazards and risks.

(c) Providing transparency and accountability to the public regarding well stimulation treatments, including, but not limited to, hydraulic fracturing, associated emissions to the environment, and the handling, processing, and disposal of well stimulation and related wastes, including from hydraulic fracturing, is of paramount concern.

(d) The public disclosure of chemical information required by this act ensures that potential public exposure to, and dose received from, well stimulation treatment fluid chemicals can be reasonably discerned.

(e) The Legislature encourages the use or reuse of treated or untreated water and produced water for well stimulation treatments and well stimulation treatment-related activities.

## **SEC. 2.**

Article 3 (commencing with Section 3150) is added to Chapter 1 of Division 3 of the Public Resources Code, to read:

### **Article 3. Well Stimulation**

#### **3150.**

“Additive” means a substance or combination of substances added to a base fluid for purposes of preparing well stimulation treatment fluid which includes, but is not limited to, an acid stimulation treatment fluid or a hydraulic fracturing fluid. An additive may, but is not required to, serve additional purposes beyond the transmission of hydraulic pressure to the geologic formation. An additive may be of any phase and includes proppants.

#### **3151.**

“Base fluid” means the continuous phase fluid used in the makeup of a well stimulation treatment fluid, including, but not limited to, an acid stimulation treatment fluid or a hydraulic fracturing fluid. The continuous phase fluid may include, but is not limited to, water, and may be a liquid or a hydrocarbon or nonhydrocarbon gas. A well stimulation treatment may use more than one base fluid.

#### **3152.**

“Hydraulic fracturing” means a well stimulation treatment that, in whole or in part, includes the pressurized injection of hydraulic fracturing fluid or fluids into an underground geologic formation in order to fracture or with the intent to fracture the formation, thereby causing or enhancing, for the purposes of this division, the production of oil or gas from a well.

#### **3153.**

“Well stimulation treatment fluid” means a base fluid mixed with physical and chemical additives, which may include acid, for the purpose of a well stimulation treatment. A well stimulation treatment may include more than one well stimulation treatment fluid. Well stimulation treatment fluids include, but are not limited to, hydraulic fracturing fluids and acid stimulation treatment fluids.

#### **3154.**

“Proppants” means materials inserted or injected into the underground geologic formation that are intended to prevent fractures from closing.

#### **3155.**

“Supplier” means an entity performing a well stimulation treatment or an entity supplying an additive or proppant directly to the operator for use in a well stimulation treatment.

#### **3156.**

“Surface property owner” means the owner of real property as shown on the latest equalized assessment roll or, if more recent information than the information contained on the assessment roll is available, the owner of record according to the county assessor or tax collector.

#### **3157.**

(a) For purposes of this article, “well stimulation treatment” means any treatment of a well designed to enhance oil and gas production or recovery by increasing the permeability of the formation. Well stimulation treatments include, but are not limited to, hydraulic fracturing treatments and acid well stimulation treatments.

(b) Well stimulation treatments do not include steam flooding, water flooding, or cyclic steaming and do not include routine well cleanout work, routine well maintenance, routine removal of formation damage due to drilling, bottom hole pressure surveys, or routine activities that do not affect the integrity of the well or the formation.

#### **3158.**

“Acid well stimulation treatment” means a well stimulation treatment that uses, in whole or in part, the application of one or more acids to the well or underground geologic formation. The acid well stimulation treatment may be at any applied pressure



and may be used in combination with hydraulic fracturing treatments or other well stimulation treatments. Acid well stimulation treatments include acid matrix stimulation treatments and acid fracturing treatments. Acid matrix stimulation treatments are acid treatments conducted at pressures lower than the applied pressure necessary to fracture the underground geologic formation.

**3159.**

“Flowback fluid” means the fluid recovered from the treated well before the commencement of oil and gas production from that well following a well stimulation treatment. The flowback fluid may include materials of any phase.

**3160.**

(a) On or before January 1, 2015, the Secretary of the Natural Resources Agency shall cause to be conducted, and completed, an independent scientific study on well stimulation treatments, including, but not limited to, hydraulic fracturing and acid well stimulation treatments. The scientific study shall evaluate the hazards and risks and potential hazards and risks that well stimulation treatments pose to natural resources and public, occupational, and environmental health and safety. The scientific study shall do all of the following:

(1) Follow the well-established standard protocols of the scientific profession, including, but not limited to, the use of recognized experts, peer review, and publication.

(2) Identify areas with existing and potential conventional and unconventional oil and gas reserves where well stimulation treatments are likely to spur or enable oil and gas exploration and production.

(3) (A) Evaluate all aspects and effects of well stimulation treatments, including, but not limited to, the well stimulation treatment, additive and water transportation to and from the well site, mixing and handling of the well stimulation treatment fluids and additives onsite, the use and potential for use of nontoxic additives and the use or reuse of treated or produced water in well stimulation treatment fluids, flowback fluids and handling, treatment, and disposal of flowback fluids and other materials, if any, generated by the treatment. Specifically, the potential for the use of recycled water in well stimulation treatments, including appropriate water quality requirements and available treatment technologies, shall be evaluated. Well stimulation treatments include, but are not limited to, hydraulic fracturing and acid well stimulation treatments.

(B) Review and evaluate acid matrix stimulation treatments, including the range of acid volumes applied per treated foot and total acid volumes used in treatments, types of acids, acid concentration, and other chemicals used in the treatments.

(4) Consider, at a minimum, atmospheric emissions, including potential greenhouse gas emissions, the potential degradation of air quality, potential impacts on wildlife, native plants, and habitat, including habitat fragmentation, potential water and surface contamination, potential noise pollution, induced seismicity, and the ultimate disposition, transport, transformation, and toxicology of well stimulation treatments, including acid well stimulation fluids, hydraulic fracturing fluids, and waste hydraulic fracturing fluids and acid well stimulation in the environment.

(5) Identify and evaluate the geologic features present in the vicinity of a well, including the well bore, that should be taken into consideration in the design of a proposed well stimulation treatment.

(6) Include a hazard assessment and risk analysis addressing occupational and environmental exposures to well stimulation treatments, including hydraulic fracturing treatments, hydraulic fracturing treatment-related processes, acid well stimulation treatments, acid well stimulation treatment-related processes, and the corresponding impacts on public health and safety with the participation of the Office of Environmental Health Hazard Assessment.

(7) Clearly identify where additional information is necessary to inform and improve the analyses.

(b)

(1)

(A) On or before January 1, 2015, the division, in consultation with the Department of Toxic Substances Control, the State Air Resources Board, the State Water Resources Control Board, the Department of Resources Recycling and Recovery, and any local air districts and regional water quality control boards in areas where well stimulation treatments, including acid well stimulation treatments and hydraulic fracturing treatments may occur, shall adopt rules and regulations specific to well stimulation treatments. The rules and regulations shall include, but are not limited to, revisions, as needed, to the rules and regulations governing construction of wells and well casings to ensure integrity of wells, well casings, and the geologic and hydrologic isolation of the oil and gas formation during and following well stimulation treatments, and full disclosure of the composition and disposition of well stimulation fluids, including, but not limited to, hydraulic fracturing fluids, acid well stimulation fluids, and flowback fluids.

(B) The rules and regulations shall additionally include provisions for an independent entity or person to perform the notification requirements pursuant to paragraph (6) of subdivision (d), for the operator to provide for baseline and followup water testing upon request as specified in paragraph (7) of subdivision (d).

(C)

(i) In order to identify the acid matrix stimulation treatments that are subject to this section, the rules and regulations shall establish threshold values for acid volume applied per treated foot of any individual stage of the well or for total acid volume of the treatment, or both, based upon a quantitative assessment of the risks posed by acid matrix stimulation treatments that exceed the

specified threshold value or values in order to prevent, as far as possible, damage to life, health, property, and natural resources pursuant to Section 3106.

(ii) On or before January 1, 2020, the division shall review and evaluate the threshold values for acid volume applied per treated foot and total acid volume of the treatment, based upon data collected in the state, for acid matrix stimulation treatments. The division shall revise the values through the regulatory process, if necessary, based upon the best available scientific information, including the results of the independent scientific study pursuant to subparagraph (B) of paragraph (3) of subdivision (a).

(2) Full disclosure of the composition and disposition of well stimulation fluids, including, but not limited to, hydraulic fracturing fluids and acid stimulation treatment fluids, shall, at a minimum, include:

(A) The date of the well stimulation treatment.

(B) A complete list of the names, Chemical Abstract Service (CAS) numbers, and maximum concentration, in percent by mass, of each and every chemical constituent of the well stimulation treatment fluids used. If a CAS number does not exist for a chemical constituent, the well owner or operator may provide another unique identifier, if available.

(C) The trade name, the supplier, concentration, and a brief description of the intended purpose of each additive contained in the well stimulation treatment fluid.

(D) The total volume of base fluid used during the well stimulation treatment, and the identification of whether the base fluid is water suitable for irrigation or domestic purposes, water not suitable for irrigation or domestic purposes, or a fluid other than water.

(E) The source, volume, and specific composition and disposition of all water, including, but not limited to, all water used as base fluid during the well stimulation treatment and recovered from the well following the well stimulation treatment that is not otherwise reported as produced water pursuant to Section 3227. Any repeated reuse of treated or untreated water for well stimulation treatments and well stimulation treatment-related activities shall be identified.

(F) The specific composition and disposition of all well stimulation treatment fluids, including waste fluids, other than water.

(G) Any radiological components or tracers injected into the well as part of, or in order to evaluate, the well stimulation treatment, a description of the recovery method, if any, for those components or tracers, the recovery rate, and specific disposal information for recovered components or tracers.

(H) The radioactivity of the recovered well stimulation fluids.

(I) The location of the portion of the well subject to the well stimulation treatment and the extent of the fracturing or other modification, if any, surrounding the well induced by the treatment.

(c)

(1) Through the consultation process described in paragraph (1) of subdivision (b), the division shall collaboratively identify and delineate the existing statutory authority and regulatory responsibility relating to well stimulation treatments and well stimulation treatment-related activities of the Department of Toxic Substances Control, the State Air Resources Board, any local air districts, the State Water Resources Control Board, the Department of Resources Recycling and Recovery, any regional water quality control board, and other public entities, as applicable. This shall specify how the respective authority, responsibility, and notification and reporting requirements associated with well stimulation treatments and well stimulation treatment-related activities are divided among each public entity.

(2) On or before January 1, 2015, the division shall enter into formal agreements with the Department of Toxic Substances Control, the State Air Resources Board, any local air districts where well stimulation treatments may occur, the State Water Resources Control Board, the Department of Resources Recycling and Recovery, and any regional water quality control board where well stimulation treatments may occur, clearly delineating respective authority, responsibility, and notification and reporting requirements associated with well stimulation treatments and well stimulation treatment-related activities, including air and water quality monitoring, in order to promote regulatory transparency and accountability.

(3) The agreements under paragraph (2) shall specify the appropriate public entity responsible for air and water quality monitoring and the safe and lawful disposal of materials in landfills, include trade secret handling protocols, if necessary, and provide for ready public access to information related to well stimulation treatments and related activities.

(4) Regulations, if necessary, shall be revised appropriately to incorporate the agreements under paragraph (2).

(d)

(1) Notwithstanding any other law or regulation, prior to performing a well stimulation treatment on a well, the operator shall apply for a permit to perform a well stimulation treatment with the supervisor or district deputy. The well stimulation treatment permit application shall contain the pertinent data the supervisor requires on printed forms supplied by the division or on other forms acceptable to the supervisor. The information provided in the well stimulation treatment permit application shall include, but is not limited to, the following:

(A) The well identification number and location.

(B) The time period during which the well stimulation treatment is planned to occur.

(C) A water management plan that shall include all of the following:

- (i) An estimate of the amount of water to be used in the treatment. Estimates of water to be recycled following the well stimulation treatment may be included.
  - (ii) The anticipated source of the water to be used in the treatment.
  - (iii) The disposal method identified for the recovered water in the flowback fluid from the treatment that is not produced water included in the statement pursuant to Section 3227.
- (D) A complete list of the names, Chemical Abstract Service (CAS) numbers, and estimated concentrations, in percent by mass, of each and every chemical constituent of the well stimulation fluids anticipated to be used in the treatment. If a CAS number does not exist for a chemical constituent, the well owner or operator may provide another unique identifier, if available.
- (E) The planned location of the well stimulation treatment on the well bore, the estimated length, height, and direction of the induced fractures or other planned modification, if any, and the location of existing wells, including plugged and abandoned wells, that may be impacted by these fractures and modifications.
- (F) A groundwater monitoring plan. Required groundwater monitoring in the vicinity of the well subject to the well stimulation treatment shall be satisfied by one of the following:
- (i) The well is located within the boundaries of an existing oil or gas field-specific or regional monitoring program developed pursuant to Section 10783 of the Water Code.
  - (ii) The well is located within the boundaries of an existing oil or gas field-specific or regional monitoring program developed and implemented by the well owner or operator meeting the model criteria established pursuant to Section 10783 of the Water Code.
  - (iii) Through a well-specific monitoring plan implemented by the owner or operator meeting the model criteria established pursuant to Section 10783 of the Water Code, and submitted to the appropriate regional water board for review.
- (G) The estimated amount of treatment-generated waste materials that are not reported in subparagraph (C) and an identified disposal method for the waste materials.
- (2)
- (A) At the supervisor's discretion, and if applied for concurrently, the well stimulation treatment permit described in this section may be combined with the well drilling and related operation notice of intent required pursuant to Section 3203 into a single combined authorization. The portion of the combined authorization applicable to well stimulation shall meet all of the requirements of a well stimulation treatment permit pursuant to this section.
- (B) Where the supervisor determines that the activities proposed in the well stimulation treatment permit or the combined authorization have met all of the requirements of Division 13 (commencing with Section 21000), and have been fully described, analyzed, evaluated, and mitigated, no additional review or mitigation shall be required.
- (C) The time period available for approval of the portion of the combined authorization applicable to well stimulation is subject to the terms of this section, and not Section 3203.
- (3)
- (A) The supervisor or district deputy shall review the well stimulation treatment permit application and may approve the permit if the application is complete. An incomplete application shall not be approved.
- (B) A well stimulation treatment or repeat well stimulation treatment shall not be performed on any well without a valid permit that the supervisor or district deputy has approved.
- (C) In considering the permit application, the supervisor shall evaluate the quantifiable risk of the well stimulation treatment.
- (4) The well stimulation treatment permit shall expire one year from the date that the permit is issued.
- (5) Within five business days of issuing a permit to perform a well stimulation treatment, the division shall provide a copy of the permit to the appropriate regional water quality control board or boards and to the local planning entity where the well, including its subsurface portion, is located. The division shall also post the permit on the publicly accessible portion of its Internet Web site within five business days of issuing a permit.
- (6)
- (A) It is the policy of the state that a copy of the approved well stimulation treatment permit and information on the available water sampling and testing be provided to every tenant of the surface property and every surface property owner or authorized agent of that owner whose property line location is one of the following:
- (i) Within a 1,500 foot radius of the wellhead.
  - (ii) Within 500 feet from the horizontal projection of all subsurface portions of the designated well to the surface.
- (B) (i) The well owner or operator shall identify the area requiring notification and shall contract with an independent entity or person who is responsible for, and shall perform, the notification required pursuant to subparagraph (A).
- (ii) The independent entity or person shall identify the individuals notified, the method of notification, the date of the notification, a list of those notified, and shall provide a list of this information to the division.

- (iii) The performance of the independent entity or persons shall be subject to review and audit by the division.
- (C) A well stimulation treatment shall not commence before 30 calendar days after the permit copies pursuant to subparagraph (A) are provided.
- (7)
  - (A) A property owner notified pursuant to paragraph (6) may request water quality sampling and testing from a designated qualified contractor on any water well suitable for drinking or irrigation purposes and on any surface water suitable for drinking or irrigation purposes as follows:
    - (i) Baseline measurements prior to the commencement of the well stimulation treatment.
    - (ii) Followup measurements after the well stimulation treatment on the same schedule as the pressure testing of the well casing of the treated well.
  - (B) The State Water Resources Control Board shall designate one or more qualified independent third-party contractor or contractors that adhere to board-specified standards and protocols to perform the water sampling and testing. The well owner or operator shall pay for the sampling and testing. The sampling and testing performed shall be subject to audit and review by the State Water Resources Control Board or applicable regional water quality control board, as appropriate.
  - (C) The results of the water testing shall be provided to the division, appropriate regional water board, and the property owner or authorized agent. A tenant notified pursuant to paragraph (6) shall receive information on the results of the water testing to the extent authorized by his or her lease and, where the tenant has lawful use of the ground or surface water identified in subparagraph (A), the tenant may independently contract for similar groundwater or surface water testing.
  - (8) The division shall retain a list of the entities and property owners notified pursuant to paragraphs (5) and (6).
  - (9) The operator shall provide notice to the division at least 72 hours prior to the actual start of the well stimulation treatment in order for the division to witness the treatment.
- (e) The Secretary of the Natural Resources Agency shall notify the Joint Legislative Budget Committee and the chairs of the Assembly Natural Resources, Senate Environmental Quality, and Senate Natural Resources and Water Committees on the progress of the independent scientific study on well stimulation and related activities. The first progress report shall be provided to the Legislature on or before April 1, 2014, and progress reports shall continue every four months thereafter until the independent study is completed, including a peer review of the study by independent scientific experts.
- (f) If a well stimulation treatment is performed on a well, a supplier that performs any part of the stimulation or provides additives directly to the operator for a well stimulation treatment shall furnish the operator with information suitable for public disclosure needed for the operator to comply with subdivision (g). This information shall be provided as soon as possible but no later than 30 days following the conclusion of the well stimulation treatment.
- (g)
  - (1) Within 60 days following cessation of a well stimulation treatment on a well, the operator shall post or cause to have posted to an Internet Web site designated or maintained by the division and accessible to the public, all of the well stimulation fluid composition and disposition information required to be collected pursuant to rules and regulations adopted under subdivision (b), including well identification number and location. This shall include the collected water quality data, which the operator shall report electronically to the State Water Resources Control Board.
  - (2)
    - (A) The division shall commence the process to develop an Internet Web site for operators to report the information required under this section. The Internet Web site shall be capable of organizing the reported information in a format, such as a spreadsheet, that allows the public to easily search and aggregate, to the extent practicable, each type of information required to be collected pursuant to subdivision (b) using search functions on that Internet Web site. The Internet Web site shall be functional within two years of the Department of Technology's approval of a Feasibility Study Report or appropriation authority to fund the development of the Internet Web site, whichever occurs latest, but no later than January 1, 2016.
    - (B) The division may direct reporting to an alternative Internet Web site developed by the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission in the interim until such time as approval or appropriation authority pursuant to subparagraph (A) occur. Prior to the implementation of the division's Internet Web site, the division shall obtain the data reported by operators to the alternative Internet Web site and make it available in an organized electronic format to the public no later than 15 days after it is reported to the alternative Web site.
- (h) The operator is responsible for compliance with this section.
- (i)
  - (1) All geologic features within a distance reflecting an appropriate safety factor of the fracture zone for well stimulation treatments that fracture the formation and that have the potential to either limit or facilitate the migration of fluids outside of the fracture zone shall be identified and added to the well history. Geologic features include seismic faults identified by the California Geologic Survey.
  - (2) For the purposes of this section, the "fracture zone" is defined as the volume surrounding the well bore where fractures were created or enhanced by the well stimulation treatment. The safety factor shall be at least five and may vary depending upon geologic knowledge.

(3) The division shall review the geologic features important to assessing well stimulation treatments identified in the independent study pursuant to paragraph (5) of subdivision (a). Upon completion of the review, the division shall revise the regulations governing the reporting of geologic features pursuant to this subdivision accordingly.

(j)

(1) Public disclosure of well stimulation treatment fluid information claimed to contain trade secrets is governed by Section 1060 of the Evidence Code, or the Uniform Trade Secrets Act (Title 5 (commencing with Section 3426) of Part 1 of Division 4 of the Civil Code), and the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code).

(2) Notwithstanding any other law or regulation, none of the following information shall be protected as a trade secret:

(A) The identities of the chemical constituents of additives, including CAS identification numbers.

(B) The concentrations of the additives in the well stimulation treatment fluids.

(C) Any air or other pollution monitoring data.

(D) Health and safety data associated with well stimulation treatment fluids.

(E) The chemical composition of the flowback fluid.

(3) If a trade secret claim is invalid or invalidated, the division shall release the information to the public by revising the information released pursuant to subdivision (g). The supplier shall notify the division of any change in status within 30 days.

(4)

(A) If a supplier believes that information regarding a chemical constituent of a well stimulation fluid is a trade secret, the supplier shall nevertheless disclose the information to the division in conjunction with a well stimulation treatment permit application, if not previously disclosed, within 30 days following cessation of well stimulation on a well, and shall notify the division in writing of that belief.

(B) A trade secret claim shall not be made after initial disclosure of the information to the division.

(C) To comply with the public disclosure requirements of this section, the supplier shall indicate where trade secret information has been withheld and provide substitute information for public disclosure. The substitute information shall be a list, in any order, of the chemical constituents of the additive, including CAS identification numbers. The division shall review and approve the supplied substitute information.

(D) This subdivision does not permit a supplier to refuse to disclose the information required pursuant to this section to the division.

(5) In order to substantiate the trade secret claim, the supplier shall provide information to the division that shows all of the following:

(A) The extent to which the trade secret information is known by the supplier's employees, others involved in the supplier's business and outside the supplier's business.

(B) The measures taken by the supplier to guard the secrecy of the trade secret information.

(C) The value of the trade secret information to the supplier and its competitors.

(D) The amount of effort or money the supplier expended developing the trade secret information and the ease or difficulty with which the trade secret information could be acquired or duplicated by others.

(6) If the division determines that the information provided in support of a request for trade secret protection pursuant to paragraph (5) is incomplete, the division shall notify the supplier and the supplier shall have 30 days to complete the submission. An incomplete submission does not meet the substantive criteria for trade secret designation.

(7) If the division determines that the information provided in support of a request for trade secret protection does not meet the substantive criteria for trade secret designation, the department shall notify the supplier by certified mail of its determination. The division shall release the information to the public, but not earlier than 60 days after the date of mailing the determination, unless, prior to the expiration of the 60-day period, the supplier obtains an action in an appropriate court for a declaratory judgment that the information is subject to protection or for a preliminary injunction prohibiting disclosure of the information to the public and provides notice to the division of the court order.

(8) The supplier is not required to disclose trade secret information to the operator.

(9) Upon receipt of a request for the release of trade secret information to the public, the following procedure applies:

(A) The division shall notify the supplier of the request in writing by certified mail, return receipt requested.

(B) The division shall release the information to the public, but not earlier than 60 days after the date of mailing the notice of the request for information, unless, prior to the expiration of the 60-day period, the supplier obtains an action in an appropriate court for a declaratory judgment that the information is subject to protection or for a preliminary injunction prohibiting disclosure of the information to the public and provides notice to the division of that action.

(10) The division shall develop a timely procedure to provide trade secret information in the following circumstances:

(A) To an officer or employee of the division, the state, local governments, including, but not limited to, local air districts, or the United States, in connection with the official duties of that officer or employee, to a health professional under any law for the protection of health, or to contractors with the division or other government entities and their employees if, in the opinion of the division, disclosure is necessary and required for the satisfactory performance of a contract, for performance of work, or to protect health and safety.

(B) To a health professional in the event of an emergency or to diagnose or treat a patient.

(C) In order to protect public health, to any health professional, toxicologist, or epidemiologist who is employed in the field of public health and who provides a written statement of need. The written statement of need shall include the public health purposes of the disclosure and shall explain the reason the disclosure of the specific chemical and its concentration is required.

(D) A health professional may share trade secret information with other persons as may be professionally necessary, in order to diagnose or treat a patient, including, but not limited to, the patient and other health professionals, subject to state and federal laws restricting disclosure of medical records including, but not limited to, Chapter 2 (commencing with Section 56.10) of Part 2.6 of Division 1 of the Civil Code.

(E) For purposes of this paragraph, "health professional" means any person licensed or certified pursuant to Division 2 (commencing with Section 500) of the Business and Professions Code, the Osteopathic Initiative Act, the Chiropractic Initiative Act, or the Emergency Medical Services System and the Prehospital Emergency Medical Care Personnel Act (Division 2.5 (commencing with Section 1797) of the Health and Safety Code).

(F) A person in possession of, or access to, confidential trade secret information pursuant to the provisions of this subdivision may disclose this information to any person who is authorized to receive it. A written confidentiality agreement shall not be required.

(k) A well granted confidential status pursuant to Section 3234 shall not be required to disclose well stimulation treatment fluid information pursuant to subdivision (g) until the confidential status of the well ceases. Notwithstanding the confidential status of a well, it is public information that a well will be or has been subject to a well stimulation treatment.

(l) The division shall perform random periodic spot check inspections to ensure that the information provided on well stimulation treatments is accurately reported, including that the estimates provided prior to the commencement of the well stimulation treatment are reasonably consistent with the well history.

(m) Where the division shares jurisdiction over a well or the well stimulation treatment on a well with a federal entity, the division's rules and regulations shall apply in addition to all applicable federal laws and regulations.

(n) This article does not relieve the division or any other agency from complying with any other provision of existing laws, regulations, and orders.

(o) Well stimulation treatments used for routine maintenance of wells associated with underground storage facilities where natural gas is injected into and withdrawn from depleted or partially depleted oil or gas reservoirs pursuant to subdivision (a) of Section 3403.5 are not subject to this section.

### **3161.**

(a) The division shall finalize and implement the regulations governing this article on or before January 1, 2015.

(b) The division shall allow, until regulations governing this article are finalized and implemented, and upon written notification by an operator, all of the activities defined in Section 3157, provided all of the following conditions are met:

(1) The owner or operator certifies compliance with subdivision (b) of, subparagraphs (A) to (F), inclusive, of paragraph (1) and paragraphs (6) and (7) of subdivision (d) of, and subdivision (g) of, Section 3160.

(2) The owner or operator provides a complete well history, incorporating the information required by Section 3160, to the division on or before March 1, 2015.

(3) The division conducts an environmental impact report (EIR) pursuant to the California Environmental Quality Act (Division 13 (commencing with Section 21000)), in order to provide the public with detailed information regarding any potential environmental impacts of well stimulation in the state.

(4) Any environmental review conducted by the division shall fully comply with all of the following requirements:

(A) The EIR shall be certified by the division as the lead agency, no later than July 1, 2015.

(B) The EIR shall address the issue of activities that may be conducted as defined in Section 3157 and that may occur at oil wells in the state existing prior to, and after, the effective date of this section.

(C) The EIR shall not conflict with an EIR conducted by a local lead agency that is certified on or before July 1, 2015. Nothing in this section prohibits a local lead agency from conducting its own EIR.

(5) The division ensures that all activities pursuant to this section fully conform with this article and other applicable provisions of law on or before December 31, 2015, through a permitting process.

(6) The division has the emergency regulatory authority to implement the purposes of this section.

## **SEC. 3.**

Section 3213 of the Public Resources Code is amended to read:

### **3213.**

The history shall show the location and amount of sidetracked casings, tools, or other material, the depth and quantity of cement in cement plugs, the shots of dynamite or other explosives, acid treatment data, and the results of production and other tests during drilling operations. All data on well stimulation treatments pursuant to Section 3160 shall be recorded in the history.

## **SEC. 4.**

Section 3215 of the Public Resources Code is amended to read:

**3215.**

(a) Within 60 days after the date of cessation of drilling, rework, well stimulation treatment, or abandonment operations, or the date of suspension of operations, the operator shall file with the district deputy, in a form approved by the supervisor, true copies of the log, core record, and history of work performed, and, if made, true and reproducible copies of all electrical, physical, or chemical logs, tests, or surveys. Upon a showing of hardship, the supervisor may extend the time within which to comply with this section for a period not to exceed 60 additional days.

(b) The supervisor shall include information or electronic links to information provided pursuant to subdivision (g) of Section 3160 on existing publicly accessible maps on the division's Internet Web site, and make the information available such that well stimulation treatment and related information are associated with each specific well. If data is reported on an Internet Web site not maintained by the division pursuant to paragraph (2) of subdivision (g) of Section 3160, the division shall provide electronic links to that Internet Web site. The public shall be able to search and sort the hydraulic well stimulation and related information by at least the following criteria:

- (1) Geographic area.
- (2) Additive.
- (3) Chemical constituent.
- (4) Chemical Abstract Service number.
- (5) Time period.
- (6) Operator.

(c) Notwithstanding Section 10231.5 of the Government Code, on or before January 1, 2016, and annually thereafter, the supervisor shall, in compliance with Section 9795 of the Government Code, prepare and transmit to the Legislature a comprehensive report on well stimulation treatments in the exploration and production of oil and gas resources in California. The report shall include aggregated data of all of the information required to be reported pursuant to Section 3160 reported by the district, county, and operator. The report also shall include relevant additional information, as necessary, including, but not limited to, all of the following:

- (1) Aggregated data detailing the disposition of any produced water from wells that have undergone well stimulation treatments.
- (2) Aggregated data describing the formations where wells have received well stimulation treatments including the range of safety factors used and fracture zone lengths.
- (3) The number of emergency responses to a spill or release associated with a well stimulation treatment.
- (4) Aggregated data detailing the number of times trade secret information was not provided to the public, by county and by each company, in the preceding year.
- (5) Data detailing the loss of well and well casing integrity in the preceding year for wells that have undergone well stimulation treatment. For comparative purposes, data detailing the loss of well and well casing integrity in the preceding year for all wells shall also be provided. The cause of each well and well casing failure, if known, shall also be provided.
- (6) The number of spot check inspections conducted pursuant to subdivision (l) of Section 3160, including the number of inspections where the composition of well stimulation fluids were verified and the results of those inspections.
- (7) The number of well stimulation treatments witnessed by the division.
- (8) The number of enforcement actions associated with well stimulation treatments, including, but not limited to, notices of deficiency, notices of violation, civil or criminal enforcement actions, and any penalties assessed.

(d) The report shall be made publicly available and an electronic version shall be available on the division's Internet Web site.

**SEC. 5.**

Section 3236.5 of the Public Resources Code is amended to read:

**3236.5.**

(a) A person who violates this chapter or a regulation implementing this chapter is subject to a civil penalty not to exceed twenty-five thousand dollars (\$25,000) for each violation. A person who commits a violation of Article 3 (commencing with Section 3150) is subject to a civil penalty of not less than ten thousand dollars (\$10,000) and not to exceed twenty-five thousand dollars (\$25,000) per day per violation. An act of God and an act of vandalism beyond the reasonable control of the operator shall not be considered a violation. The civil penalty shall be imposed by an order of the supervisor pursuant to Section 3225 upon a determination that a violation has been committed by the person charged. The imposition of a civil penalty under this section shall be in addition to any other penalty provided by law for the violation. When establishing the amount of the civil penalty pursuant to this section, the supervisor shall consider, in addition to other relevant circumstances, all of the following:

- (1) The extent of harm caused by the violation.
- (2) The persistence of the violation.
- (3) The pervasiveness of the violation.
- (4) The number of prior violations by the same violator.

(b) An order of the supervisor imposing a civil penalty shall be reviewable pursuant to Article 6 (commencing with Section 3350). When the order of the supervisor has become final and the penalty has not been paid, the supervisor may apply to the appropriate superior court for an order directing payment of the civil penalty. The supervisor may also seek from the court an

order directing that production from the well or use of the production facility that is the subject of the civil penalty order be discontinued until the violation has been remedied to the satisfaction of the supervisor and the civil penalty has been paid.

(c) Any amount collected under this section shall be deposited in the Oil, Gas, and Geothermal Administrative Fund.

## SEC. 6.

Section 3401 of the Public Resources Code is amended to read:

### 3401.

(a) The proceeds of charges levied, assessed, and collected pursuant to this article upon the properties of every person operating or owning an interest in the production of a well shall be used exclusively for the support and maintenance of the department charged with the supervision of oil and gas operations.

(b) Notwithstanding subdivision (a), the proceeds of charges levied, assessed, and collected pursuant to this article upon the properties of every person operating or owning an interest in the production of a well undergoing a well stimulation treatment, may be used by public entities, subject to appropriation by the Legislature, for all costs associated with both of the following:

(1) Well stimulation treatments, including rulemaking and scientific studies required to evaluate the treatment, inspections, any air and water quality sampling, monitoring, and testing performed by public entities.

(2) The costs of the State Water Resources Control Board and the regional water quality control boards in carrying out their responsibilities pursuant to Section 3160 and Section 10783 of the Water Code.

## SEC. 7.

Section 10783 is added to the Water Code, to read:

### 10783.

(a) The Legislature finds and declares that protecting the state's groundwater for beneficial use, particularly sources and potential sources of drinking water, is of paramount concern.

(b) The Legislature further finds and declares that strategic, scientifically based groundwater monitoring of the state's oil and gas fields is critical to allaying the public's concerns regarding well stimulation treatments of oil and gas wells.

(c) On or before July 1, 2015, in order to assess the potential effects of well stimulation treatments, as defined in Article 3 (commencing with Section 3150) of Chapter 1 of Division 3 of the Public Resources Code, on the state's groundwater resources in a systematic way, the state board shall develop model groundwater monitoring criteria to be implemented either on a well-by-well basis for a well subject to well stimulation treatment, or on a regional scale. The model criteria shall address a range of spatial sampling scales from methods for conducting appropriate monitoring on individual oil and gas wells subject to a well stimulation treatment, to methods for conducting a regional groundwater monitoring program. The state board shall take into consideration the recommendations received pursuant to subdivision (d) and shall include in the model criteria, at a minimum, the components identified in subdivision (f). The state board shall prioritize monitoring of groundwater that is or has the potential to be a source of drinking water, but shall protect all waters designated for any beneficial use.

(d) The state board, in consultation with the Department of Conservation, Division of Oil, Gas, and Geothermal Resources, shall seek the advice of experts on the design of the model groundwater monitoring criteria. The experts shall assess and make recommendations to the state board on the model criteria. These recommendations shall prioritize implementation of regional groundwater monitoring programs statewide, as warranted, based upon the prevalence of well stimulation treatments of oil and gas wells and groundwater suitable as a source of drinking water.

(e) The state board shall also seek the advice of stakeholders representing the diverse interests of the oil- and gas-producing areas of the state. The stakeholders shall include the oil and gas industry, agriculture, environmental justice, and local government, among others, with regional representation commensurate with the intensity of oil and gas development in that area. The stakeholders shall also make recommendations to the state board regarding the development and implementation of groundwater monitoring criteria, including priority locations for implementation.

(f) The scope and nature of the model groundwater monitoring criteria shall include the determination of all of the following:

(1) An assessment of the areas to conduct groundwater quality monitoring and their appropriate boundaries.

(2) A list of the constituents to measure and assess water quality.

(3) The location, depth, and number of monitoring wells necessary to detect groundwater contamination at spatial scales ranging from an individual oil and gas well to a regional groundwater basin including one or more oil and gas fields.

(4) The frequency and duration of the monitoring.

(5) A threshold criteria indicating a transition from well-by-well monitoring to a regional monitoring program.

(6) Data collection and reporting protocols.

(7) Public access to the collected data under paragraph (6).

(g) Factors to consider in addressing subdivision (f) shall include, but are not limited to, all of the following:



- (1) The existing quality and existing and potential use of the groundwater.
  - (2) Groundwater that is not a source of drinking water consistent with the United States Environmental Protection Agency's definition of an Underground Source of Drinking Water as containing less than 10,000 milligrams per liter total dissolved solids in groundwater (40 C.F.R. 144.3), including exempt aquifers pursuant to Section 146.4 of Title 40 of the Code of Federal Regulations.
  - (3) Proximity to human population, public water service wells, and private groundwater use, if known.
  - (4) The presence of existing oil and gas production fields, including the distribution, physical attributes, and operational status of oil and gas wells therein.
  - (5) Events, including well stimulation treatments and oil and gas well failures, among others, that have the potential to contaminate groundwater, appropriate monitoring to evaluate whether groundwater contamination can be attributable to a particular event, and any monitoring changes necessary if groundwater contamination is observed.
- (h)
- (1) On or before January 1, 2016, the state board or appropriate regional board shall begin implementation of the regional groundwater monitoring programs based upon the developed criteria under subdivision (c).
  - (2) In the absence of state implementation of a regional groundwater monitoring program, a well owner or operator may develop and implement an area-specific groundwater monitoring program based upon the developed criteria under subdivision (c), subject to approval by the state or regional board, if applicable, and that meets the requirements of this section.
    - (i) The model criteria for either a well-by-well basis for a well subject to well stimulation treatment, or for a regional groundwater monitoring program, shall be used to satisfy the permitting requirements for well stimulation treatments on oil and gas wells pursuant to Section 3160 of the Public Resources Code. The model criteria used on a well-by-well basis for a well subject to a well stimulation treatment shall be used where no regional groundwater monitoring plan approved by the state or regional board, if applicable, exists and has been implemented by either the state or regional board or the well owner or operator.
  - (j) The model criteria shall accommodate monitoring where surface access is limited. Monitoring is not required for oil and gas wells where the wells do not penetrate groundwater of beneficial use, as determined by a regional water quality control board, or do not penetrate exempt aquifers pursuant to Section 146.4 of Title 40 of the Code of Federal Regulations.
- (k)
- (1) The model criteria and groundwater monitoring programs shall be reviewed and updated periodically, as needed.
  - (2) The use of the United States Environmental Protection Agency's definition of an Underground Source of Drinking Water as containing less than 10,000 milligrams per liter total dissolved solids in groundwater (40 C.F.R. 144.3) and whether exempt aquifers pursuant to Section 146.4 of Title 40 of the Code of Federal Regulations shall be subject to groundwater monitoring shall be reviewed by the state board through a public process on or before January 1, 2020.
- (l)
- (1) All groundwater quality data collected pursuant to subparagraph (F) of paragraph (1) of subdivision (d) of Section 3160 of the Public Resources Code shall be submitted to the state board in an electronic format that is compatible with the state board's GeoTracker database, following the guidelines detailed in Chapter 30 (commencing with Section 3890) of Division 3 of Title 23 of the California Code of Regulations.
  - (2) A copy of the reported data under paragraph (1) shall be transferred by the state board to a public, nonprofit doctoral-degree-granting educational institution located in the San Joaquin Valley, administered pursuant to Section 9 of Article IX of the California Constitution, in order to form the basis of a comprehensive groundwater quality data repository to promote research, foster interinstitutional collaboration, and seek understanding of the numerous factors influencing the state's groundwater.
- (m) The adoption of criteria required pursuant to this section is exempt from the rulemaking provisions of the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code). The adoption of criteria pursuant to this section shall instead be accomplished by means of a public process reasonably calculated to give those persons interested in their adoption an opportunity to be heard.

## SEC. 8.

No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.