AMENDED IN ASSEMBLY AUGUST 17, 2015

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AMENDED IN SENATE MAY 5, 2015

AMENDED IN SENATE APRIL 6, 2015

SENATE BILL

No. 248

## **Introduced by Senator Pavley**

February 18, 2015

An act to amend Sections 3108, 3213, and 3227 3227, and 3780 of, to add Sections 3011, 3106.3, 3113, 3114, 3165, 3213.5, 3221, 3227.2, and 3227.2 3786 to, and to add Article 2.7 (commencing with Section 3140) to Chapter 1 of Division 3 of, the Public Resources Code, relating to oil and gas.

## LEGISLATIVE COUNSEL'S DIGEST

SB 248, as amended, Pavley. Oil and gas.

(1) Existing law requires the Division of Oil, Gas, and Geothermal Resources in the Department of Conservation to regulate the drilling, operation, maintenance, and abandonment of wells and the operation, maintenance, and removal or abandonment of tanks and facilities attendant to oil and gas production. Existing law requires the State Oil and Gas Supervisor, on or before the first day of October of each year, to make public a report on specified information.

This bill would require the supervisor to establish an inspection program for all activities regulated pursuant to these provisions and SB 248 — 2—

would require the total number of inspections and results of the inspections to be included in the above-referenced report. The bill would require the division's regulations, field rules, notices, manuals, and other requirements to be reviewed and revised, as needed, through a public process at least once every 10 years.

The bill would require the division, as part of the Oil and Gas Data Management System developed pursuant to the Budget Act of 2015, to ensure that required well data and well-related submissions are retained and readily available to the public and that publicly available data are machine readable. Unless otherwise incorporated in the Oil and Gas Data Management System, the bill would require the division to post certain information that it receives on its Internet Web site.

The bill would define "enhanced oil recovery" for purposes of provisions relating to the regulation of oil and gas.

The bill would require the division, by July 1, 2017, to develop and implement additional safeguards, as needed, to protect groundwater where a well stimulation treatment is proposed for a shallow well or at a shallow depth in a well, as specified.

(2) Existing law requires an owner or operator of a well to keep, or cause to be kept, and requires the operator to file with the district deputy at specified times, a careful and accurate log, core record, and history of the drilling of the well. Existing law requires the well history to 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, the results of production and other tests during drilling operations, and all data on well stimulation treatments. Existing law requires the owner of any well to file with the supervisor a monthly statement that provides certain information relating to the well, including the amount of water produced from each well. Existing law provides that a person who fails to comply with specific laws relating to the regulation of oil or gas operations, including failing to furnish a report or record, is guilty of a misdemeanor.

This bill would, in addition, require all operations on or in the well of any form to be systematically, completely, and accurately described and recorded in the well history. The bill would require any fluid injected or emplaced in the well to be fully characterized and reported as part of the history. history, as specified. The bill would require the monthly statement to the supervisor to include the full characterization of the chemical composition of water produced from each well. The bill would also require the operator of a waste disposal well to provide

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to the supervisor each quarter certain information regarding waste disposal injections. The bill would prohibit, commencing July 1, 2017, a chemical from being injected or emplaced in a well unless the division has in its possession specified information developed through established techniques about its physical, chemical, and biological properties in order to permit assessment of its toxicity, persistence, and mobility in the surrounding environment. The bill would require the division to post a list of chemicals and the measured parameters that meet this criteria on its Internet Web site. The bill would require the division to consult with the Office of Environmental Health Hazard Assessment in establishing the acceptable techniques and the list of measured parameters. Because a violation of these requirements would be a crime, the bill would impose a state-mandated local program.

(3) The federal Safe Drinking Water Act regulates certain wells as Class II wells. Under existing federal law, the authority to regulate Class II wells in California is delegated to the Division of Oil, Gas, and Geothermal Resources. Under existing regulations, a well operator is required to obtain approval from the supervisor or a district deputy for a subsurface injection or disposal project, including Class II wells, or any change in a project, as provided.

This bill would require the division, on or before January 1, 2018, to update and revise these regulations, except as specified, according to specified criteria and would require the division to consult with independent experts and stakeholders in the development and review of the regulations. The bill would require the regulations to include certain requirements, including reporting requirements. The bill would require injection wells and well projects existing as of December 31, 2017, to be brought into compliance with these regulations on or before January 1, 2020. The bill would require these provisions to be liberally construed in order to meet specified requirements and to provide public transparency. The bill would provide that where the division shares jurisdiction over an injection well with a federal entity, the division's rules and regulations are to apply in addition to all applicable federal laws and regulations. The bill would require an injection well subject to specified emergency regulations, or any successor regulations, of the division regarding aquifer exemptions to immediately cease injection operations, other than those required for plugging and abandonment operations, if the well is not in compliance with those regulations by the applicable regulatory deadline. Because a violation of these

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requirements would be a crime, the bill would impose a state-mandated local program.

(4) Existing law requires the Department of Fish and Wildlife, whenever it determines that an oil sump, as defined, is hazardous to wildlife or constitutes an immediate and grave danger to wildlife, to notify the State Oil and Gas Supervisor of the condition so that the supervisor may take action to have the condition cleaned up or abated. Under existing law, the Legislature finds and declares that it is essential in order to protect the wildlife resources of California that all hazardous exposed oil sumps in this state be either screened or eliminated.

This bill would revise the definition of an oil sump and provide that, in order to protect groundwater, surface water, air quality, and wildlife resources, commencing July 1, 2017, no oil sumps shall be used for the disposal of waters or waste waters attendant to oil and gas field exploration, development, and production.

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(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.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: yes.

The people of the State of California do enact as follows:

- 1 SECTION 1. The Legislature finds and declares all of the 2 following:
- 3 (a) A 2011 audit of the Division of Oil, Gas, and Geothermal 4 Resources' injection well program commissioned by the United 5 States Environmental Protection Agency highlighted numerous problems with the program.
  - (b) The division has repeatedly acknowledged that it has failed to follow applicable regulations in permitting injection wells and that its injection well regulations are out of date. Among other reasons, the division has cited antiquated data management practices.
- 12 (c) The 2015 independent science study on well stimulation 13 treatments in the state provides well-researched and documented 14 findings including the identification of data gaps and poor well

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stimulation treatment-related practices that place the state, its people, and natural resources at unnecessary and unknown risk.

<del>(e)</del>

(d) The division's ability to regulate depends upon full understanding and knowledge of practices occurring under its jurisdiction.

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- (e) Public transparency and regulatory accountability are necessary to restore the public's confidence in the division.
- SEC. 2. Section 3011 is added to the Public Resources Code, to read:
- 3011. "Enhanced oil recovery" means any process to enhance the displacement of oil or other hydrocarbons from a reservoir, including, but not limited to, the injection or subsurface emplacement of fluids or other materials into the productive strata, the application of pressure, heat, or other means for the reduction of viscosity of the hydrocarbons, and the supplying of additional motive force.
- SEC. 3. Section 3106.3 is added to the Public Resources Code, to read:
- 3106.3. (a) The supervisor shall establish an inspection program for all activities regulated pursuant to Section 3106.
- (b) In establishing the inspection program, the supervisor shall do, but is not limited to doing, all of the following:
  - (1) Identify activities subject to inspection.
- (2) Create forms or checklists associated with each type of inspection.
- (3) Establish the time or time period in which each inspection shall be performed.
- (4) Establish procedures for how an inspection shall be conducted.
- (c) The inspection program shall be available to the public on the division's Internet Web site.
- SEC. 4. Section 3108 of the Public Resources Code is amended to read:
- 3108. (a) On or before the first day of October of each year the supervisor shall make public, for the benefit of all interested persons, a report in writing containing all of the following:
- 39 (1) The total amounts of oil and gas produced in each county 40 in the state during the previous calendar year.

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(2) The total cost of the division for the previous fiscal year.

- (3) The total amount delinquent and uncollected from any assessments or charges levied pursuant to this chapter.
- (4) The total number of inspections and the results of the inspections.
  - (b) The report shall also include other information as the supervisor deems advisable.
  - SEC. 5. Section 3113 is added to the Public Resources Code, to read:
  - 3113. (a) It is the policy of the state that the division regularly review and update its regulations, field rules, notices, manuals, and other requirements to ensure that technological advances and other changes in the exploration, development, and production of oil and gas are incorporated to ensure that life, health, property, and natural resources are protected pursuant to Section 3106.
  - (b) The division's regulations, field rules, notices, manuals, and other requirements shall be reviewed and revised, as needed, through a public process. The regulations, field rules, notices, manuals, and other requirements need not be reviewed all at once, but each of them shall be reviewed at least once every 10 years. A revision is not required pursuant to this section if the supervisor makes a public written finding indicating that the existing regulation, field rule, manual, or other requirement is appropriate and reflects best management practices.
  - (c) The supervisor shall prepare and transmit reports to the Legislature describing the results of the reviews required by this section and any revisions made or planned to the division's regulations, field rules, notices, manuals, and other requirements. A report required by this subdivision shall be submitted in compliance with Section 9795 of the Government Code.
- (d) The division shall develop and disseminate in a timely manner training materials related to any revisions made pursuant to this section.
  - SEC. 6. Section 3114 is added to the Public Resources Code, to read:
- 3114. (a) The division shall, as part of the Oil and Gas Data Management System developed pursuant to the Budget Act of 2015 (Chapter 10 of the Statutes of (Ch. 10, Stats. 2015), ensure that required well data and well-related submissions are retained and readily available to the public and that publicly available data

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are machine readable. Unless otherwise incorporated in the Oil and Gas Data Management System, the division shall make available to the public on its Internet Web site at least all of the following:

- (1) Any notice received pursuant to Section 3203 within five days of receipt.
- (2) Any changes in status of any notice received pursuant to Section 3203 within five days of the change.
- (3) The log, history, and core record of a well within 10 days of receipt.
- (b) The division shall consult with local, state, and federal regulators in the development of the Oil and Gas Data Management System to facilitate timely sharing of data.
- SEC. 7. Article 2.7 (commencing with Section 3140) is added to Chapter 1 of Division 3 of the Public Resources Code, to read:

## Article 2.7. Injection Wells

- 3140. (a) (1) On or before January 1, 2018, the division shall update and revise its regulations for all injection wells and well projects for which the division has received primacy from the United States Environmental Protection Agency pursuant to Section 1425 of the federal Safe Drinking Water Act (42 U.S.C. Sec. 300h-4).
- (2) Injection well and well project regulations that the division is in the process of adopting as of January 1, 2016, and that address issues identified in subdivision (c), shall not be subject to update and revision pursuant to this section.
- (b) In adopting regulations pursuant to this section, the division shall, in consultation with independent experts and stakeholders through a public process, do all of the following:
- (1) Develop best management practices for injection wells and well projects.
- (2) Review cement and cementing requirements, including factors influencing the aging of cement.
- (3) Identify the impacts and potential impacts of injection on the geologic formations in which injection wells are located to ensure that well and formation integrity is maintained and groundwater with a beneficial use is protected, consider the range of injection practices for different purposes, including, but not

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limited to, waste disposal, cyclic steam injection, steam flooding, and water flooding, and clearly identify when fracturing of the formation is deemed to occur or is likely to occur that may result in surface movement, including, the development of sinkholes and the loss of well and formation integrity.

- (c) Injection well and well project regulations adopted pursuant to this section may do one or more of the following:
- (1) Clarify standards for ensuring zonal isolation of injection projects.
- (2) Expressly define the quality of water to be protected when constructing wells.
  - (3) Codify best practices for well construction.
- (4) Establish permitting and regulatory requirements specific to cyclic steam operations.
- (5) Establish requirements specific to cyclic steam in diatomite, including a regulatory framework for responding to surface expressions and provide clarification regarding injection above fracture gradient.
- (6) Clarify the process and standards for establishing maximum allowable surface pressure for injection operations.
- 3141. The regulations adopted pursuant to Section 3140 shall ensure that the integrity of the well, wellbore, and formation are maintained. In order to accomplish this requirement, the regulations shall do both of the following:
- (a) Be specific to each type of injection well and well project used for any purpose, including, but not limited to, enhanced oil recovery and waste disposal.
- (b) Include any operation, treatment, process, and activity performed to enhance oil recovery on, in, or in the vicinity of, any well, wellbore, or hydrocarbon-bearing formation.
- 3142. (a) It is the intent of this section to provide specific direction to the division to include certain components in the development of the regulations required by this article in order to promote public transparency and regulatory accountability, and address public concerns about potential seismicity, surface instability, and the fracturing of the formation induced by injection wells and their operation. Additional state and federal law and regulations apply.
- (b) The regulations adopted pursuant to Section 3140 shall include, but are not limited to, the following:

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(1) An opportunity for public participation in the well and well project review process, if not otherwise provided through local land use planning and zoning requirements.

- (2) Full and complete geologic and hydrologic characterization and reporting of the formation surrounding the well, including the fracture pressure. This characterization shall include determination of the area of review pursuant to Section 146.6 of Title 40 of the Code of Federal Regulations, and the performance of a step-rate test or tests to evaluate fracture pressure or pressures.
- (3) Full and complete characterization and reporting of all well operations with appropriate monitoring of surface movement such as the development of sinkholes or seismic activity. To the extent practicable, monitoring requirements shall be standardized and explicit in the regulations.
- (4) Establishment of limits on operations, and procedures to follow in the event of surface movement, including, but not limited to, the development of sinkholes and seismic activity.
- 3143. Injection wells and well projects existing as of December 31, 2017, shall be brought into compliance with the regulations adopted pursuant to Section 3140 on or before January 1, 2020.
- 3144. This article shall be liberally construed pursuant to Section 3013 in order to meet the requirements of Section 3106 and to provide public transparency.
- 3145. Where the division shares jurisdiction over an injection well with a federal entity, the division's rules and regulations shall apply in addition to all applicable federal laws and regulations.
- 3146. An injection well subject to the division's emergency regulations regarding aquifer exemptions (Sections 1760.1 and 1779.1 of Title 14 of the California Code of Regulations, effective on April 20, 2015), or any successor regulations, shall immediately cease injection operations other than those required for plugging or abandonment operations if the well is not in compliance with those regulations by the applicable regulatory deadline.
- SEC. 8. Section 3165 is added to the Public Resources Code, to read:
- 3165. (a) By July 1, 2017, the division shall develop and implement additional safeguards, as needed, to protect groundwater where a well stimulation treatment is proposed for a shallow well or at a shallow depth in a well.

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(b) The division shall consider at least the following in developing the safeguards pursuant to subdivision (a):

- (1) Whether guidance specific to a field or pool based on geology and hydrology is needed.
- (2) Whether additional fracturing design controls, monitoring, operational controls, and reporting are needed in order to assess whether the actual length and orientation of induced fractures place groundwater at risk.
- 9 (c) For the purposes of this section, "shallow" means 2000 feet 10 or less in depth.

**SEC. 8.** 

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- *SEC.* 9. Section 3213 of the Public Resources Code is amended to read:
- 3213. (a) 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, all acid treatment data of any amount and concentration, and the results of production and other tests during drilling operations. All operations on or in the well of any form, including, but not limited to, the injection or emplacement of any material in the well for any purpose during the drilling, operation, maintenance, or abandonment of the well shall be systematically, completely, and accurately described and recorded in the history. All data on well stimulation treatments pursuant to Section 3160 shall be recorded in the history.
  - (b) The well history reporting requirements shall not be waived. SEC. 9.
- SEC. 10. Section 3213.5 is added to the Public Resources Code, to read:
- 3213.5. (a) The chemical composition of any fluid injected or emplaced in the well shall be fully characterized and reported as part of the history. The chemical composition shall include any phase present as part of, or suspended in, the fluid. The analytical method used in the determination shall also be reported. Analytical methods established by the United States Environmental Protection Agency to determine chemical composition shall be used where applicable. For purposes of this section, fluid means a liquid or gas of any chemical composition. Subdivision (j) of Section 3160 shall apply to any claim of trade secret protection for information described in this section.

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(b) Where produced water from the same source receiving identical treatment is repeatedly injected into a well, the chemical composition of a single representative sample per month meets the well history reporting requirement.

- SEC. 11. Section 3221 is added to the Public Resources Code, to read:
- 3221. (a) Commencing July 1, 2017, no chemical shall be injected or emplaced in a well unless the division has in its possession information developed through established techniques about its physical, chemical, and biological properties in order to permit assessment of its toxicity, persistence, and mobility in the surrounding environment. This information shall include parameters to assess the solubility, volatility, partitioning, susceptibility to hydrolysis, biodegradability, and bioaccumulation potential. At a minimum, the octanol-water partitioning coefficient, the vapor pressure, Henry's constant, soil organic carbon—water partitioning coefficient, acid dissociation coefficient, and acute and chronic toxicity for oral, dermal, and inhalation routes of exposure shall be provided.
- (b) The division shall post a list of chemicals and the measured parameters that meet the criteria pursuant to subdivision (a) on its Internet Web site.
- (c) The division shall consult with the Office of Environmental Health Hazard Assessment in establishing the acceptable techniques and the list of measured parameters for the implementation of subdivision (a).

SEC. 10.

- SEC. 12. Section 3227 of the Public Resources Code is amended to read:
- 3227. (a) The owner of any well shall file with the supervisor, on or before the last day of each month, for the last preceding calendar month, a statement, in the form designated by the supervisor, showing all of the following:
- (1) (A) The amount of oil and gas produced from each well during the period indicated, together with the gravity of the oil, the amount of water produced from each well, estimated in accordance with methods approved by the supervisor, and the number of days during which fluid was produced from each well.
- (B) The full characterization of the chemical composition of water produced from each well, based on a representative sample,

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which shall include any phase present as part of, or suspended in, the water, and the analytical method used in making the characterization. Analytical methods established by the United States Environmental Protection Agency to determine chemical composition shall be used where applicable.

- (2) The number of wells drilling, producing, injecting, or idle, that are owned or operated by the person.
- (3) What disposition was made of the gas produced from each field, including the names of persons, if any, to whom the gas was delivered, and any other information regarding the gas and its disposition that the supervisor may require.
- (4) What disposition was made of water produced from each field and the amount of fluid or gas injected into each well used for enhanced recovery, underground storage of hydrocarbons, or wastewater disposal, and any other information regarding those wells that the supervisor may require.
- (5) The source of water, and volume of any water, reported in paragraph (4), including the water used to generate or make up the composition of any injected fluid or gas. Water volumes shall be reported by water source if more than one water source is used. The volume of untreated water suitable for domestic or irrigation purposes shall be reported. Commingled water shall be proportionally assigned to individual wells, as appropriate.
- (6) The treatment of water and the use of treated or recycled water in oil and gas field activities, including, but not limited to, exploration, development, and production.
- (7) (A) The specific disposition of all water used in or generated by oil and gas field activities, including water produced from each well reported pursuant to paragraph (1). Water volumes shall be reported by disposition method if more than one disposition method is used. Commingled water shall be proportionally assigned to individual wells, as appropriate.
- (B) This information shall also include the temporary onsite storage of water, as or if appropriate, and the ultimate specific use, disposal method or method of recycling, or reuse of this water.
- (b) Any operator that produces oil by the application of mining or other unconventional techniques shall file a report with the supervisor, on or before March 1 of each year, showing the amount of oil produced by those techniques in the preceding calendar year.

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(c) (1) Upon request and making a satisfactory showing therefor, a longer filing period may be established by the supervisor for any particular owner or operator.

- (2) Notwithstanding subdivision (a), the owner of any well shall file with the supervisor, on a quarterly basis, a statement containing the information required to be reported pursuant to paragraphs (5), (6), and (7) of subdivision (a) in the form designated by the supervisor.
- (d) The division shall use a standardized form or format to facilitate reporting required pursuant to this section.
- (e) The division shall use noncustom software, as feasible, to implement online reporting by the operator of the information required pursuant to paragraphs (5), (6), and (7) of subdivision (a). This information may be reported separately from other information required to be reported pursuant to this section.
- (f) For purposes of this section, the following terms have the following meanings:
- (1) "Source of water" or "water source" means any of the following:
- (A) The well or wells, if commingled, from which the water was produced or extracted.
  - (B) The water supplier, if purchased or obtained from a supplier.
  - (C) The point of diversion of surface water.
- (2) "Specific disposition of all water" means the identification of the ultimate specific use, disposal method or method of recycling, or reuse of the water. This includes, but is not limited to, the identification of any treatment or recycling method used, injection of the water into specific injection or disposal well or wells, if commingled, discharge of the water to surface water or sumps, and sale or transfer of the water to a named entity.

SEC. 11.

- SEC. 13. Section 3227.2 is added to the Public Resources Code, to read:
- 3227.2. (a) The operator of a waste disposal well shall provide to the supervisor each quarter information described in subdivision (b) from the preceding quarter that is specific to each waste disposal injection performed at the well and that fully characterizes each waste disposal injection performed at the well. The information shall be reported in a machine-readable format.

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(b) The information to be provided shall include, but is not limited to, the date and time of the injection, the duration of the injection, the volume of material injected, the rate of injection, and the applied pressure of the injection.

SEC. 14. Section 3780 of the Public Resources Code is amended to read:

3780. As used in this chapter, an "oil sump" is any open depression or basin in the ground, whether manmade or natural, which contains oil or a combination of oil and water. lined or unlined, serving as a receptacle for collecting, disposing of, or storing waste fluids, including, but not limited to, mud, oil, or waters or waste waters attendant to oil and gas field exploration, development, and production. "Waters or waste waters attendant to oil and gas field exploration, development, and production" includes, but is not limited to, waters or waste waters associated with well drilling, oil production, well completion, and well stimulation treatments, and may contain oil or other hydrocarbons and materials and be multiphase.

SEC. 15. Section 3786 is added to the Public Resources Code, to read:

3786. In order to protect groundwater, surface water, air quality, and wildlife resources, commencing July 1, 2017, no oil sumps shall be used for the disposal of waters or waste waters attendant to oil and gas field exploration, development, and production.

SEC. 12.

SEC. 16. No reimbursement is required by this act pursuant to Section 6 of Article XIIIB 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 XIIIB of the California Constitution.