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Quiet Suffocation: California Oil and Gas Production Near Communities of Color is a Public Health Crisis

Jade Wolansky

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Quiet Suffocation: California Oil and Gas Production Near Communities of Color is a Public Health Crisis

Jade Wolansky*

Code Sections Affected

Government Code § 12805.4 (new); Public Resources Code § 3203.5 (new).
AB 345 (Muratsuchi); Inactive.

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I. INTRODUCTION

Elvia Garcia “smelled strong odors of something decaying” coming from the electrical outlets of her Arvin, California home.¹ She and her family “thought there was something in between the walls that had died.”² Government inspectors found toxic gas leaking from an underground pipe 225 feet away from homes in Garcia’s neighborhood.³ The Kern County Fire Department gave her family only one hour to evacuate.⁴ Garcia would need to wait nine months before it was safe for her family to live in their home again.⁵ High levels of toxic chemicals in the air and soil prevented their return.⁶

As demonstrated by the Arvin gas pipe leak, living near oil and gas production facilities has dangerous and unintended consequences.⁷ Oil and gas extraction

1. Mark Olalde & Ryan Menezes, *The Toxic Legacy of Old Oil Wells: California’s Multibillion-Dollar Problem*, L.A. TIMES (Feb. 6, 2020), <https://www.latimes.com/projects/california-oil-well-drilling-idle-cleanup/> (on file with the *University of the Pacific Law Review*).

2. *Id.*

3. *See id.* (reporting that government inspectors drilled test holes and discovered explosive levels of gas); *see also* Henry A. Barrios, *For Arvin Evacuees, There’s No Place Like Home*, BAKERSFIELD CALIFORNIAN (June 14, 2014), https://www.bakersfield.com/archives/for-arvin-evacuees-there-s-no-place-like-home/article_94065ad6-75a6-567f-bee3-17f494c4764d.html (on file with the *University of the Pacific Law Review*) (describing that the natural gas pipeline was underground and 225 feet away from the nearest home). *See generally* Rebekah Kearns, *Kern Families Sue Petro over Toxic Gas Leak*, COURTHOUSE NEWS SERV. (Mar. 14, 2016), <https://www.courthousenews.com/kern-families-sue-petro-over-toxic-gas-leak/> (on file with the *University of the Pacific Law Review*) (reporting that eight families evacuated their homes from approximately March 2014 until December 2014 due to high levels of explosive gas).

4. Telephone Interview with Jose Gurrola, Mayor of Arvin, California (July 23, 2020) [hereinafter Gurrola Interview] (notes on file with the *University of the Pacific Law Review*).

5. *See* Olalde & Menezes, *supra* note 1 (indicating Elvia Garcia had to wait nine months before she returned to her home in Arvin).

6. *See* Barrios, *supra* note 3 (reporting that Kern County released air and soil sample results that found high levels of benzene and naphthalene).

7. *See* Olalde & Menezes, *supra* note 1 (recounting Elvia Garcia’s experience evacuating after the dangerous Arvin gas pipe leak).

poisons the air and water, and it poses a serious threat to public health.⁸ Hydraulic fracking—a new drilling technique—enabled oil and gas operators to move fossil fuels closer and closer to people’s backyards.⁹ Oil and gas production disproportionately takes place near communities of color.¹⁰ AB 345 sought to protect these frontline communities by establishing statewide setback distances between oil and gas wells and sensitive land uses, such as homes, schools, and hospitals.¹¹

Oil and gas corporations prey on minority communities to operate because those communities frequently have fewer financial and political resources to successfully resist fossil fuel production.¹² The industry’s persistent and unrestricted placement of oil and gas wells near minority communities is environmental racism and perpetuates public health inequities.¹³ AB 345’s opponents argued that setback distance laws are unconstitutional regulatory takings that deprive oil and gas operators of the right to profit from their property.¹⁴ While takings claims were unlikely to be successful, their aim was to discourage governments from adopting buffer zones.¹⁵ AB 345 would have standardized setback laws and guided California’s regulatory agencies to prioritize health and safety.¹⁶ Adopting AB 345 was a necessary step to protect public health,

8. LAST CHANCE ALLIANCE, CALIFORNIA OIL AND GAS POLICY BRIEF: OUR LAST CHANCE, PHASING OUT FOSSIL FUELS 12 (2019), available at <https://lastchancealliance.org/wp-content/uploads/2019/07/California-Oil-and-Gas-Policy-Brief-Last-Chance-Alliance.pdf> (on file with the *University of the Pacific Law Review*).

9. See Kevin J. Lynch, *Regulation of Fracking Is Not a Taking of Private Property*, 84 U. CIN. L. REV. 39, 42 (2018) (indicating that hydraulic fracking is a new drilling technique that allows operators to extract from reserves that were previously inaccessible and increasingly encroach upon densely populated urban and suburban areas).

10. See TANJA SREBOTNJAK & MIRIAM ROTKIN-ELLMAN, NRDC, DRILLING IN CALIFORNIA: WHO’S AT RISK? 4 (2014), available at <https://www.nrdc.org/sites/default/files/california-fracking-risks-report.pdf> (on file with the *University of the Pacific Law Review*) (“In total, people of color make up nearly 92 percent of the 1.8 million people living within a mile of oil and gas development and in communities already heavily burdened by pollution.”).

11. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted).

12. See JAY WITHGOTT & MATTHEW LAPOSATA, ENVIRONMENT: THE SCIENCE BEHIND THE STORIES 138 (6th ed. 2018) (explaining that low-income minority communities are exposed to a greater share of environmental pollution because they often have less access to information on environmental health risks, less political power to influence politicians to protect their interests, and fewer financial resources to mitigate pollution risks).

13. Compare SREBOTNJAK & ROTKIN-ELLMAN, *supra* note 10, at 9 (indicating that approximately 5.4 million people live within a mile of one or more oil and gas wells, which is roughly to 1 in 5 African Americans, 1 in 6 Hispanic/Latinos, 1 in 7 Asians, and 1 in 9 Whites) with Gerald Torres, *Introduction: Understanding Environmental Racism*, 63 U. COLO. L. REV. 839, 840 (1992) (“[W]hen we label an environmental practice as an example of environmental racism we are saying that the predictable distributional impact of that decision contributes to the structure of racial subordination and domination that has similarly marked many of our public policies in this country.”).

14. See Lynch, *supra* note 9 (describing how the oil and gas industry retaliates against fracking regulation by threatening to file takings claims).

15. See *id.* at 42–43 (2018) (explaining that takings claims based on fracking are unlikely to succeed because of the government’s overriding interest in protecting health and safety and the environment).

16. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted).

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particularly for minority communities living near oil and gas development.¹⁷ However, given AB 345’s demise in the legislature, California should adopt setback distances through the California Geologic Energy Management Division (“CalGEM”) and the rulemaking process.¹⁸

II. LEGAL BACKGROUND

CalGEM is housed within the Department of Conservation (“DOC”) and is the primary agency overseeing California’s oil and gas industry.¹⁹ CalGEM—formerly the Division of Oil, Gas, and Geothermal Resources (“DOGGR”)—coordinates with federal, state, and local agencies to monitor the state’s oil and gas production.²⁰

Section A discusses SB 4’s role in establishing California’s current multi-agency regulatory framework for the oil and gas industry and funding the scientific support for AB 345.²¹ Section B describes how AB 1057 renamed DOGGR to CalGEM and transitioned CalGEM’s purpose to include public health.²² Section C looks into California cities and counties that have already adopted setback distance laws.²³ Section D reviews California’s Administrative Procedures Act.²⁴ Section E describes buffer zone regulations in Colorado, a state with similar oil production levels that uses an agency-led approach to setback distances.²⁵ Section F explains unconstitutional regulatory takings.²⁶

A. SB 4 (Pavley 2013): Regulating and Information Gathering on Hydraulic Fracking

SB 4 established DOGGR as the lead agency to monitor California’s oil and gas production, with an enhanced focus on regulating hydraulic fracking.²⁷

17. Compare AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted) (showing AB 345 would have created setback distances between oil and gas wells and communities to protect public health), with SREBOTNJAK & ROTKIN-ELLMAN, *supra* note 10, at 4 (indicating that minority communities are disproportionately more likely to live near oil and gas activity).

18. CAL. GOV’T CODE § 11346.2 (West 2020).

19. See generally *About Us*, CAL. DEP’T CONSERVATION, <https://www.conservation.ca.gov/about-us> (last visited Aug. 9, 2020) (on file with the *University of the Pacific Law Review*) (describing CalGEM’s role within the Department of Conservation in regulating oil and natural gas).

20. See ETHAN N. ELKIND & TED LAMM, BERKELEY CTR. FOR LAW, ENERGY AND THE ENV’T, LEGAL GROUNDS LAW AND POLICY OPTIONS TO FACILITATE A PHASE-OUT OF FOSSIL FUEL PRODUCTION IN CALIFORNIA 5 (2020) (listing the federal, state, and local agencies that regulate the oil and gas industry).

21. *Infra* Section II.A.

22. *Infra* Section II.B.

23. *Infra* Section II.C.

24. *Infra* Section II.D.

25. *Infra* Section II.E.

26. *Infra* Section II.F.

27. CAL. PUB. RES. CODE § 3160 (West 2020).

Previously, California did not have a specific regulatory program that monitored hydraulic fracking, a new and increasingly popular extraction technology.²⁸ SB 4 directed DOGGR to establish a separate and enhanced permitting and disclosure process for hydraulic fracking.²⁹

In addition, SB 4 required a scientific study on hydraulic fracking's environmental and public health impacts.³⁰ The research that resulted laid the foundation for AB 345's setback distances.³¹ Researchers concluded the most significant exposure to toxic air contaminants occur within approximately 2,500 feet from active oil and gas activity.³² Researchers recommended setback distance laws for all oil and gas wells.³³ However, the distance would depend on a number of factors, including the nature of the "sensitive receptors."³⁴ Sensitive receptors are land uses where populations are more susceptible to pollution.³⁵ Homes, schools, and hospitals are examples of sensitive receptors.³⁶

B. AB 1057 (Limon 2019): A Change in Direction for the DOGGR

AB 1057 renamed DOGGR to CalGEM and directed it to adopt regulations that not only monitor the oil and gas industry, but also specifically protect public health.³⁷ Prior to AB 1057, DOGGR primarily focused on oil and gas

28. See Phillip M. Bender, *California Creates New Regulatory Regime for "Fracking,"* A.B.A. (Nov. 1, 2013), https://www.americanbar.org/groups/environment_energy_resources/publications/trends/2013-14/november-december-2013/california_creates_new_regulatory_regime_fracking/ (last visited Aug. 9, 2020) (on file with the *University of the Pacific Law Review*) (describing California's lack of oversight over hydraulic fracking).

29. ELKIND & LAMM, *supra* note 20, at 17.

30. See CAL. PUB. RES. CODE § 3160 (West 2020) (indicating that the study needed to "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").

31. Assembly Floor, Floor Analysis of AB 345, at 2 (Jan. 27, 2020).

32. See JANE C.S. LONG ET AL., CAL. COUNCIL ON SCI. & TECH., AN INDEPENDENT SCIENTIFIC ASSESSMENT OF WELL STIMULATION IN CALIFORNIA VOLUME II 45 (2015), available at <https://ccst.us/wp-content/uploads/160708-sb4-vol-II-7.pdf> (on file with the *University of the Pacific Law Review*) ("The most significant exposures to toxic air contaminants such as benzene, aliphatic hydrocarbons and hydrogen sulfide occur within 800 m [approximately 2,500 feet] from active oil and gas development").

33. See *id.* at 431 ("The need for setbacks applies to all oil and gas wells, not just those that are stimulated.").

34. See *id.* ("The distance of a setback would depend on factors such as the presence of sensitive receptors, such as schools, daycare centers, and residential elderly care facilities").

35. See *What are Sensitive Receptors?*, U.S. ENVTL. PROTECTION AGENCY, <https://www3.epa.gov/region1/eco/uep/sensitivereceptors.html> (last visited Aug. 9, 2020) (on file with the *University of the Pacific Law Review*) ("Sensitive receptors include, but are not limited to, hospitals, schools, daycare facilities, elderly housing and convalescent facilities. These are areas where the occupants are more susceptible to the adverse effects of exposure to toxic chemicals, pesticides, and other pollutants.").

36. *Id.*

37. See CAL. PUB. RES. CODE § 3002 (West 2020) (showing AB 1057 amended "Division" to refer to the California Geologic Energy Management Division in the California Department of Conservation); PUB. RES. § 3011 ("[To protect] public health and safety and environmental quality . . . in a manner that meets the energy needs of the state.").

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development.³⁸ By enhancing CalGEM's role in promoting health and safety, AB 1057 led the way for AB 345's setback distance regulations.³⁹

C. Local Setback Ordinances in California

Several cities and counties in California already adopted buffer zone laws that establish distances between oil and gas production and sensitive land uses.⁴⁰ Local governments use their police power to restrict the location of oil and gas production through zoning law.⁴¹ The Tenth Amendment of the United States Constitution provides that states have the police power to enact laws that protect the public's safety, health, and welfare.⁴² States then grant authority to counties and cities to enact measures that protect the community.⁴³ If state laws and local laws conflict, state laws generally void local laws through preemption.⁴⁴

A number of city governments in California have adopted buffer zone laws that vary between 200 feet and 750 feet.⁴⁵ For example, the City of Signal Hill prohibits oil and gas wells 200 feet from parks and 300 feet from schools, hospitals, and places of public gathering.⁴⁶ The City of Arvin adopted a setback distance of

38. See PUB. RES. § 3106 (“[S]upervise the drilling, operation, maintenance, and abandonment of wells so as to permit the owners or operators of the wells to utilize all methods and practices known to the oil industry for the purpose of increasing the ultimate recovery of underground hydrocarbons . . .”).

39. PUB. RES. § 3011.

40. See ELKIND & LAMM, *supra* note 20, at 30 (listing several cities that already have setback distances, including Arvin, Carson, Huntington Beach, Long Beach, and Signal Hill).

41. See ELKIND & LAMM, *supra* note 20, at 30 n.185 (demonstrating that limiting oil and gas development within a city is a reasonable use of police power); see also Letter from Xavier Becerra, California Att’y Gen., to Mayor, City Councilmembers and Planning Comm’n Members, City of Arvin (June 8, 2018) (on file with the *University of the Pacific Law Review*) (quoting *Beverly Oil Co. v. City of Los Angeles*, 40 Cal. 2d 552, 558 (1953): A city has “the unquestioned right to regulate the business of operating oil wells within its city limits, and to prohibit their operation within delineated areas and districts, if reason appears for so doing”).

42. See U.S. CONST. amend X (“The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.”); *Police Powers*, CORNELL L. SCH., https://www.law.cornell.edu/wex/police_powers (last visited Aug. 8, 2020) (on file with the *University of the Pacific*) (explaining that the Tenth Amendment reserves the rights of local governments “to make all necessary laws” that protect the public’s safety, health, and welfare.’).

43. See CAL. CONST. art. XI, § 7 (“A county or city may make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws.”).

44. ELKIND & LAMM, *supra* note 20, at 30; see *Preemption*, CORNELL L. SCH. LEGAL INFO. INST., <https://www.law.cornell.edu/wex/preemption> (last visited Aug. 8, 2020) (on file with the *University of the Pacific Law Review*) (“The preemption doctrine refers to the idea that a higher authority of law will displace the law of a lower authority of law when the two authorities come into conflict.”); INST. FOR LOCAL GOV’T, LOCAL AGENCY POWERS AND LIMITATIONS (2012) (explaining that charter cities are less likely to be subject to state preemption than non-charter cities when local laws conflict with state laws).

45. See ELKIND & LAMM, *supra* note 20, at 30 (listing several cities that have setback distance laws, including Arvin, Carson, Huntington Beach, Long Beach, and Signal Hill).

46. See SIGNAL HILL, CAL., MUNICIPAL CODE ch. 16.16 (1990) (showing Signal Hill’s sections 16.16.010 and 16.16.030 drilling standards: no new wells in residential zoning areas within the city and “[t]hree hundred feet from any place of public assemblage, institution, hospital, or school” and “[t]wo hundred feet from any public park”).

300 feet from schools, hospitals, and homes.⁴⁷ Further, the City of Carson has the largest city setback distance at 750 feet between wells and homes, schools, and hospitals.⁴⁸

Several county governments have also established buffer zone laws.⁴⁹ Santa Barbara County requires 200 feet between any oil well or tank and new buildings.⁵⁰ Kern County established a buffer zone of 210 feet from homes, schools, hospitals, and locations of public gathering.⁵¹ Ventura County adopted a setback distance of 1,500 feet from homes and 2,500 feet from schools.⁵²

D. California Administrative Procedures Act

California's agencies enact regulations using the rulemaking process through the California Administrative Procedures Act ("APA").⁵³ Any person can petition an agency to adopt a new regulation.⁵⁴ Within 30 days, the agency must respond to the petition.⁵⁵ However, an agency can only adopt regulations within the scope of its authority.⁵⁶ When agencies are considering proposed regulations, the agency must provide notice for public hearings.⁵⁷

E. Colorado's Agency-Driven Oil and Gas Setback Distance Laws

Colorado, a state with similar oil production as California, uses an agency-driven regulatory approach to restricting oil and gas production.⁵⁸ The Colorado

47. See ARVIN, CAL., MUNICIPAL CODE ch. 17.46 (2018) (showing Arvin's section 17.46.022: "[t]he surface locations of wells and tanks within an oil and gas site [cannot be] located within [300 feet] . . . of public school, public park, clinic, hospital, long-term health care facility").

48. See CARSON, CAL., MUNICIPAL CODE art. IX, ch. 5 (2016) (indicating that under Carson's section 9521, oil and gas wells cannot be within "(750) feet of the property boundaries of any public school, public park, clinic, hospital, long-term health care facility" and "(750) feet of the property boundaries of any residence").

49. See MARINE RESEARCH SPECIALISTS, WHITTIER MAIN OIL FIELD DEVELOPMENT PROJECT REVISED ENVIRONMENTAL IMPACT REPORT app. G (2011), available at <https://www.cityofwhittier.org/home/showdocument?id=1380> (on file with the *University of the Pacific Law Review*) (summarizing local California setback ordinances by city and county).

50. See SANTA BARBARA COUNTY, CAL., CODE ch. 25 (2011) (showing section 25-21: "[n]o building shall be erected within [200] feet of any well or tanks").

51. See KERN COUNTY, CAL., ORDINANCE CODE tit. 19, ch. 19.98 (2015) (indicating that under Kern County's section 19.98.060 oil and gas wells cannot be drilled within "(210) feet of any sensitive receptor (single or multi-family dwelling unit, place of public assembly, institution, school or hospital)").

52. Jonathan Ullman, *Ventura County Supervisors Vote to Protect People from Oil & Gas Pollution*, SIERRA CLUB LOS PADRES CHAPTER (Sept. 16, 2020), available at <https://www.sierraclub.org/los-padres/blog/2020/09/ventura-county-supervisors-vote-protect-people-oil-gas-pollution> (on file with the *University of the Pacific Law Review*).

53. CAL. GOV'T CODE §§ 11340–11361 (West 2020).

54. GOV'T § 11340.6.

55. GOV'T § 11340.7.

56. GOV'T § 11342.1.

57. GOV'T § 11346.4.

58. ELKIND & LAMM, *supra* note 20, at 19; see *Monthly Crude Oil and Natural Gas Production*, U.S.

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Oil & Gas Conservation Commission adopted setback distances of 350 feet from parks, 500 feet from all occupied buildings, and 1,000 feet from high-occupancy buildings.⁵⁹ Schools, nursing facilities, and hospitals qualify as high-occupancy buildings.⁶⁰ Colorado’s statewide setback regulations do not preempt local city and county regulations if they adopt larger setback distances.⁶¹

F. Unconstitutional Regulatory Takings

Unconstitutional regulatory takings occur when a government adopts laws that improperly limit a property owner’s economic use of their land.⁶² Under the United States and California constitutions, if a court finds that a regulation resulted in an unconstitutional taking, the government must pay *just compensation*.⁶³ When determining whether a regulation is a taking, courts consider the *Lucas v. South Carolina Coast Council* test and the *Pennsylvania Central Transportation v. City of New York* factors.⁶⁴

ENERGY INFO. ADMIN. (July 31, 2020), <https://www.eia.gov/petroleum/production/> (on file with the *University of the Pacific Law Review*) (showing graph demonstrating California and Colorado produced a similar amount of crude oil since December 2017); *see generally* *About the COGCC*, COLORADO OIL & GAS CONSERVATION COMMISSION, <https://cogcc.state.co.us/about.html#/about> (last visited Aug. 9, 2020) (on file with the *University of the Pacific Law Review*) (“The mission of the Colorado Oil and Gas Conservation Commission (COGCC) is to regulate the development and production of the natural resources of oil and gas in the state of Colorado in a manner that protects public health, safety, welfare, the environment and wildlife resources.”).

59. ELKIND & LAMM, *supra* note 20, at 46.

60. *See* ELKIND & LAMM, *supra* note 20, at 46 (explaining that in Colorado, an operator can petition for wells to be closer if they obtain waivers from nearby property owners, meet risk mitigation measures, or demonstrate no other area is available to drill); *Definitions*, COLORADO OIL & GAS CONSERVATION COMMISSION, available at https://cogcc.state.co.us/documents/reg/Rules/2012/setback/Final_SetbackRules.pdf (on file with the *University of the Pacific Law Review*) (defining high occupancy buildings as schools, hospitals, nursing facilities, prisons, childcare centers).

61. *SB 19-181 Protect Public Welfare Oil And Gas Operations*, COLORADO GEN. ASSEMBLY, available at <https://leg.colorado.gov/bills/sb19-181#:~:text=Section%2017%20amends%20preemption%20law,or%20stricter%20than%20state%20requirements> (last visited Aug. 9, 2020) (on file with the *University of the Pacific Law Review*) (summarizing Colorado’s SB-181 which “amends preemption law by specifying . . . that local government requirements may be . . . stricter than state requirements”).

62. ELKIND & LAMM, *supra* note 20, at 31.

63. *See* U.S. CONST. amend V (“[N]or shall private property be taken for public use, without just compensation.”); CAL. CONST. art. I §19(a) (“Private property may be taken or damaged for a public use and only when just compensation, ascertained by a jury unless waived, has first been paid to, or into court for, the owner”); *see also* ELKIND & LAMM, *supra* note 20, at 31 (explaining the United States and California Constitutions both require just compensation for public takings of private property); JOHN G. SPRANKLING & RAYMOND R. COLETTA, *PROPERTY: A CONTEMPORARY APPROACH* 927–28 (4th ed. 2018) (explaining that the courts frequently quantify just compensation by the property’s the fair market value).

64. *See* *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1019 (1992) (“[W]hen an owner of real property has been called upon to sacrifice *all* economically beneficial uses . . . he has suffered a taking.”); *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978) (listing the Penn Central factors: (1) the economic impact of the regulation; (2) the regulation’s interference with reasonable investment-backed expectations; and (3) the character of the governmental action); ELKIND & LAMM, *supra* note 20, at 31 (explaining that in order to establish an unconstitutional taking “a property owner must show that the rule deprives it of all economically

Subsection 1 discusses how the courts use the *Lucas* test to determine if a regulation is an unconstitutional total taking.⁶⁵ Subsection 2 explains how the courts use the *Penn Central* factors to determine when a regulation is an unconstitutional partial taking.⁶⁶ Subsection 3 discusses methods local governments may use to phase out undesirable land uses and avoid unconstitutional regulatory takings litigation.⁶⁷

1. Total Takings and the Lucas Test

Under the *Lucas* test, when a court determines a regulation denies a property owner all economic beneficial use of their property, a regulation is a *total taking*.⁶⁸ The *Lucas* test is difficult to meet.⁶⁹ For example, the court concluded in *Palazzo* that a 94% reduction in a landowner's property value did not constitute a total taking.⁷⁰ If the court determines that a regulation does completely deprive a property of its value, the *Lucas* test permits the "background principles of nuisance and property law" defense.⁷¹ To succeed under the defense, governments must prove that a landowner's current use of the land is already unlawful.⁷² Generally, a background principles defense focuses on showing that the regulated land use was a nuisance.⁷³ However, other legal arguments based on other background principles can succeed.⁷⁴

beneficial use of the property or otherwise imposes an unreasonable burden").

65. *Infra* Subsection II.F.1.

66. *Infra* Subsection II.F.2.

67. *Infra* Subsection II.F.3.

68. *Lucas*, 505 U.S. at 1018; see SPRANKLING & COLETTA, *supra* note 63, at 993 (explaining that *Lucas* established the "categorical rule," where any regulation that deprives a property completely of its value is a per se taking, even if the public interest in adopting the regulation is high).

69. See *Palazzolo v. R.I.*, 533 U.S. 606, 616, 630–31 (2001) (showing that a steep reduction in property value from \$3,150,000 to \$200,000 was insufficient to prove that the property owner suffered total deprivation of economically beneficial use under the *Lucas* test).

70. *Palazzolo*, 533 U.S. at 616, 630–31.

71. *Lucas*, 505 U.S. at 1018.

72. See *id.* at 1029–30 ("Such regulatory action may . . . [eliminate] the land's only economically productive use, but it does not [prohibit] a productive use that was previously permissible under relevant property and nuisance principles. The use of these properties for what are now expressly prohibited purposes was always unlawful, and . . . it was open to the State at any point to make the implication of those background principles of nuisance and property law explicit."); *Lynch*, *supra* note 9, at 63 (explaining that "[i]f the government is able to prove . . . a background principle could impose the same limit as the regulation" then the government does not need to pay just compensation to the landowner).

73. See SPRANKLING & COLETTA, *supra* note 63, at 803 (explaining that when a land use is intentional, nontrespassory, unreasonable, and substantially interferes with the use and enjoyment of land, the property owner might be liable for nuisance).

74. See *Lynch*, *supra* note 9, at 63 (indicating that other background principles other than nuisance can successfully defeat *Lucas* takings claims, such as Native American treaty rights and water rights restrictions).

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2. Partial Takings and the Penn Central Factors

When a regulation does not completely eliminate the economic value of the property, courts use the *Penn Central* factors to determine if the regulation is a *partial taking*.⁷⁵ The main *Penn Central* factors are: (1) the economic impact of the regulation; (2) the regulation's interference with reasonable investment-backed expectations; and (3) the character of the governmental action.⁷⁶ Regulatory takings cases require detailed factual findings and complex analyses.⁷⁷

3. Zoning Law and Nonconforming Use

To avoid unconstitutional takings claims, local governments may use zoning laws and nonconforming uses to prohibit and phase-out undesirable land uses.⁷⁸ Cities and counties pass ordinances that divide land and designate areas for specific land uses.⁷⁹ Zoning ordinances separate residential and commercial areas.⁸⁰ When governments pass zoning amendments that cause existing land uses to fall out of compliance with current regulations, those properties become *nonconforming uses*.⁸¹ Although nonconforming uses violate current zoning laws, they may continue to operate because they were previously lawful.⁸² However, nonconforming uses can be terminated through *amortization*, which prohibits a nonconforming land use after a reasonable period of time.⁸³

75. See SPRANKLING & COLETTA, *supra* note 63, at 994 (discussing that courts use the *Penn Central* factors when a regulation does not completely eliminate the economic value of the property in question); see also Wendie L. Kellington, *New Takes on Old Takes: A Takings Law Update*, WASH. U. ST. LOUIS SCH. L., LAND USE LAW, http://landuselaw.wustl.edu/takings_update.htm (last visited Aug. 9, 2020) (on file with the *University of the Pacific Law Review*) (explaining that when a regulation affects less than the whole parcel of property in question, which is a partial taking, courts use the *Penn Central* factors).

76. *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978).

77. See *Lynch*, *supra* note 9, at 56 (describing the complexity of takings law cases).

78. See *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365, 395 (1926) (establishing that zoning laws are valid unless they are “clearly arbitrary and unreasonable, having no substantial relationship to the public health, safety, morals, and general welfare”); see also SPRANKLING & COLETTA, *supra* note 63, at 818 (explaining that governments avoid triggering unconstitutional takings litigation by using zoning law and nonconforming use to terminate unwanted land uses).

79. See SPRANKLING & COLETTA, *supra* note 63, at 817 (describing that zoning law divides land and establishes permissible land uses).

80. See *Village of Euclid*, 272 U.S. at 380 (serving as an example that local governments frequently zone land into separate residential and commercial areas).

81. See *Trip Assocs., Inc. v. Mayor & City Council of Balt.*, 898 A.2d 449, 455 (Md. 2006) (“[A] ‘nonconforming use’ is defined as ‘any lawfully existing use of a structure or of land that does not conform to the applicable use regulations of the district in which it is located.’”).

82. See SPRANKLING & COLETTA, *supra* note 63, at 818, 823–24 (explaining that nonconforming uses are protected land uses, unless the use is terminated through amortization, abandonment, destruction of the building that is housing the use, if the use is a nuisance, and eminent domain).

83. See SPRANKLING & COLETTA, *supra* note 63, at 824 (discussing that amortization generally terminates a nonconforming land use after a reasonable period of time).

When zoning amendments outlaw projects that are under construction, but not yet completed, the critical question is whether the landowner acquired vested rights.⁸⁴ If an operator establishes vested rights, then the courts permit the project to continue as a nonconforming use.⁸⁵ A property owner establishes vested rights by demonstrating he: (1) acquired permits; (2) spent funds in reliance on those permits; and (3) performed actual work on the project.⁸⁶ Local governments can terminate projects with vested rights through amortization.⁸⁷

III. AB 345

AB 345 would have directed CalGEM to adopt regulations that would establish a minimum setback distance between oil and gas activities and *sensitive receptors*.⁸⁸ However, AB 345 did not define what “oil and gas extraction activities” would be affected by setback distances.⁸⁹ AB 345 defined sensitive receptors to include homes, schools, hospitals, day care centers, playgrounds, and other locations determined by the district or state board.⁹⁰ AB 345 required buffer zone regulations to rely on health, scientific, and other data.⁹¹ In addition, AB 345 would not preempt state and local authorities from adopting additional requirements that protect public health and safety for communities living near production sites.⁹²

AB 345 would have established an environmental justice and grant-based reimbursement program to increase engagement with community groups in the rulemaking process.⁹³ Environmental justice aims to promote the equitable and meaningful involvement of all people in the development and enforcement of environmental laws.⁹⁴ AB 345 sought to enhance participation of communities

84. See ELKIND & LAMM, *supra* note 20, at 32 (determining whether the landowner has vested rights is essential for incomplete oil and gas projects).

85. See SPRANKLING & COLETTA, *supra* note 63, at 824 (explaining that if a landowner proves they have vested rights in a project, the project is protected as a nonconforming use).

86. *Avco Community Developers, Inc. v. South Coast Regional Com.*, 17 Cal. 3d 785, 791 (Cal. 1976); ELKIND & LAMM, *supra* note 20, at 31.

87. See ELKIND & LAMM, *supra* note 20, at 32 (describing that amortization can terminate vested rights).

88. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted).

89. *Id.*

90. *Id.*; CAL. HEALTH & SAFETY CODE § 42705.5(a) (West 2020).

91. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted).

92. *Id.*; see *Preemption*, CORNELL L. SCH. LEGAL INFO. INST., <https://www.law.cornell.edu/wex/preemption> (last visited Aug. 8, 2020) (on file with the *University of the Pacific Law Review*) (explaining that preemption means that the laws of a higher authority will void the laws of a lower authority if they conflict).

93. See AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted) (“The Secretary of the Natural Resources Agency [which oversees the DOC and CalGEM] shall create an environmental justice program within the Natural Resources Agency to identify and address any gaps in existing programs, policies, or activities that may impede the achievement of environmental justice.”).

94. CAL. GOV’T CODE § 65040.12 (West 2020).

impacted by oil and gas production in the regulatory process.⁹⁵

IV. ANALYSIS

AB 345 was necessary to combat the public health crisis that is endangering poor communities of color living in close proximity to oil and gas wells.⁹⁶ These communities are at a higher risk for a number of symptoms and diseases, including increased asthma attacks, cancer, high-risk pregnancies, and COVID-19 infections.⁹⁷ The state government must direct its agencies to not cater to oil and gas interests at the cost of people’s health and safety.⁹⁸

Section A asserts that continuing to allow oil and gas wells near communities of color perpetuates systemic racism.⁹⁹ Section B explains the hydraulic fracking process and how oil and gas production causes bad health outcomes.¹⁰⁰ Section C argues that AB 345’s setback distance regulations would likely not have resulted in a constitutional taking and proposes solutions that would have avoided takings litigation.¹⁰¹ Section D discusses how AB 345 would have standardized setback laws and improved protections for people’s health and safety.¹⁰² Section E suggests California should have adopted a 2,500 foot buffer zone and defined sensitive receptors broadly through AB 345.¹⁰³ Section F explores how AB 345 would have fiscally impacted oil and gas workers and proposes solutions for workers that would have been displaced.¹⁰⁴ Section G discusses how California can pass setback laws through California’s rulemaking process.¹⁰⁵

95. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted).

96. *Compare id.* (creating setback distances between oil and gas wells and communities would protect public health), with SREBOTNJAK & ROTKIN-ELLMAN, *supra* note 10, at 4 (showing communities of color are more likely to live near oil and gas operations).

97. See LAST CHANCE ALLIANCE, *supra* note 8, at 12 (highlighting that residents living near oil and gas wells also report higher rates of premature births, rashes, asthma attacks, and headaches); Joseph Luiz, *Study: Counties With High Air Pollution Have Increased Death Risk for COVID-19*, KGET (Apr. 7, 2020), <https://www.kget.com/national-news/study-higher-air-pollution-rates-up-death-risk-for-coronavirus-patients/> (on file with the *University of the Pacific Law Review*) (reporting a study that found counties with long-term air pollution had a 15% increase in COVID-19 death rate).

98. See Justin Hedemark, *Taming the West: Senate Bill 4 and California’s Struggle to Regulate Fracking*, 8 GOLDEN GATE U. ENVTL. L.J. 119, 128 (2015) (asserting DOGGR’s responsibility to maximize hydrocarbon recovery and allowing fracking while also protecting “life, health, property, and natural resources” created seemingly contradictory and competing interests).

99. *Infra* Section IV.A.

100. *Infra* Section IV.B.

101. *Infra* Section IV.C.

102. *Infra* Section IV.D.

103. *Infra* Section IV.E.

104. *Infra* Section IV.F.

105. *Infra* Section IV.G.

A. Linking the Placement of Oil and Gas Wells, Public Health, and Environmental Racism

AB 345 would have mitigated the impact oil and gas production near minority communities by requiring setback distances.¹⁰⁶ In California's most polluted regions, 1.8 million people live within one mile of an oil or gas well.¹⁰⁷ Ninety-two percent of those 1.8 million are people of color.¹⁰⁸ Continuing to allow oil and gas production near homes without restrictions is environmental racism.¹⁰⁹ Oil and gas companies specifically target minority populations to build production facilities because those communities are less likely to successfully resist.¹¹⁰ Minority communities frequently have fewer financial resources to participate in the political process and fight the placement of production sites.¹¹¹ They are also unable to competitively lobby politicians and contribute to election campaigns.¹¹²

When the City of Arvin was considering its 300-foot setback distance, the California Independent Petroleum Association contributed \$20,000 to pro-oil and pro-gas politicians in the city's councilmember race.¹¹³ Historically, a typical well-funded campaign in Arvin only cost \$2,000.¹¹⁴ Instead of communities fighting a Goliathan battle against operators, AB 345 would have protected communities by mandating statewide buffer zones that would level the political playing field.¹¹⁵

106. Compare AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted) (creating setback distances would protect the public health of communities near oil and gas activity), with SREBOTNJAK & ROTKIN-ELLMAN, *supra* note 10, at 4 (indicating that people of color are more likely to live near oil and gas operations).

107. SREBOTNJAK & ROTKIN-ELLMAN, *supra* note 10, at 4.

108. *Id.*

109. See Torres, *supra* note 13 (“[W]hen we label an environmental practice as an example of environmental racism we are saying that the predictable distributional impact of that decision contributes to the structure of racial subordination and domination that has similarly marked many of our public policies in this country.”).

110. See WITHGOTT & LAPOSATA, *supra* note 12, at 138 (explaining low-income and minority communities have less access to information, political power, and financial resources to prevent environmental degradation in their communities).

111. See *id.* at 138 (providing an example showing the link between race and environmental degradation through North Carolina's decision to place a toxic waste dump in Warren County, a community with the highest percentage of African Americans in North Carolina).

112. See *Lobbying Activity Western States Petroleum Association*, CAL. SECRETARY ST. CAL-ACCESS, <http://cal-access.sos.ca.gov/Lobbying/Employers/Detail.aspx?id=1147195&view=activity&session=2019> (last visited Aug. 9, 2020) (on file with the *University of the Pacific Law Review*) (reporting Western States Petroleum Association, an oil and gas trade group, spent approximately \$8.8 million in 2019).

113. Gabriel Thompson, *Meet the Millennial Mayor Who Took on Big Oil—and Won*, NATION (July 12, 2019), <https://www.thenation.com/article/archive/arvin-california-oil-drilling-resistance/> (on file with the *University of the Pacific Law Review*).

114. *Id.*

115. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted); see Lynch, *supra* note 9, 42 (asserting that the oil and gas industry fights fracking regulation by threatening governments with lawsuits).

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B. Allowing Oil and Gas Wells Near Communities of Color is a Public Health Crisis

Enacting AB 345 and establishing setback distances was critical to avert the public health crisis happening in communities living near oil and gas wells.¹¹⁶ Oil and gas activity contaminates the air and water in nearby communities.¹¹⁷ Subsection 1 explains how hydraulic fracking allowed operators to encroach upon the areas where people live.¹¹⁸ Subsection 2 describes how oil and gas activity contaminate the air and water and how that impacts people’s health.¹¹⁹ Subsection 3 argues why enhanced public participation is critical when governments are developing environmental regulations.¹²⁰

1. The Hydraulic Fracking Process

Oil and gas operators extract from wells near communities using hydraulic fracking, which allows access to fossil fuel reserves that were previously inaccessible.¹²¹ In the United States, nearly all oil and natural gas that is easy to extract has already been discovered and removed.¹²² As a result, the oil and gas industry developed fracking to allow operators to drill deeper into hard rock formations and at odd-angles underground.¹²³

When operators drill into the earth vertically, the drill is then angled horizontally once a hard shale formation is reached.¹²⁴ Afterwards, millions of gallons of water containing a mixture of toxic chemicals are pumped into the well.¹²⁵ Produced wastewater flows back up to the surface along with the oil and natural gas, which operators then process.¹²⁶ Fracking allows the oil and gas industry to extract from large-scale industrial facilities in densely populated urban

116. See LAST CHANCE ALLIANCE, *supra* note 8, at 12 (“Californians living near active oil and gas wells report suffering from symptoms such as nosebleeds, headaches, and worsened asthma.”).

117. *Id.*

118. *Infra* Subsection IV.B.1.

119. *Infra* Subsection IV.B.2.

120. *Infra* Subsection IV.B.3.

121. See WITHGOTT & LAPOSATA, *supra* note 12, at 160 (explaining that hydraulic fracking is also known as “hydrofracking” or just “fracking”).

122. *See id.* at 159.

123. *See id.* at 160 (specifying that hydraulic fracking allowed operators to access the massive Marcellus Shale formation that underlies Pennsylvania, New York, Ohio, and West Virginia).

124. *See id.*

125. *Hydraulic Fracturing and its Impact on Water Resources*, WATER FOOTPRINT CALCULATOR (Oct. 13, 2018), <https://www.watercalculator.org/footprint/fracking-water/> (on file with the *University of the Pacific Law Review*) (highlighting in studies of six basins, the median water use for shale-gas ranged from 390,000 to 6.27 million gallons per well, while for shale-oil median water use ranged from 70,000 to 2 million gallons of water per well).

126. *See WITHGOTT & LAPOSATA, supra* note 12, at 160.

and suburban areas.¹²⁷

2. Oil and Gas Production Poisons the Air and Water

Oil and gas activity pollutes the air around communities near fossil fuel production.¹²⁸ The Los Angeles County Department of Public Health reported that over 300 chemicals used in oil and gas hydraulic use drilling fluids are associated with health issues ranging from respiratory problems to cancer.¹²⁹ Oil and gas activity releases air contaminants through wells, pipelines, the operation of equipment, and accidental releases.¹³⁰ Communities of color living in close proximity to oil and gas wells are especially harmed because many in those same regions already have the worst air quality in the nation.¹³¹ For example, Arvin, a predominantly Hispanic and low-income community, is in the ninety-eighth percentile for ground level ozone concentrations.¹³²

By adopting AB 345, California would have protected communities near oil and gas development by preserving valuable water supplies.¹³³ Hydraulic fracking's toxic produced wastewater is primarily placed in disposal wells.¹³⁴ However, faulty disposal wells act as conduits for produced wastewater that contaminate the state's water supplies.¹³⁵ Oil and gas activity also pollute water

127. See Lynch, *supra* note 9, at 42 (indicating that operators increasingly encroach upon densely populated areas to extract oil and gas).

128. See LAST CHANCE ALLIANCE, *supra* note 8, at 12 (stressing that oil and gas production releases harmful cancer-causing chemicals, such as benzene, formaldehyde, and cadmium).

129. KATHERINE BUTLER ET AL., L.A. CTY. DEP'T OF PUB. HEALTH, PUBLIC HEALTH AND SAFETY RISKS OF OIL AND GAS FACILITIES IN LOS ANGELES COUNTY 7 (2018), available at http://publichealth.lacounty.gov/eh/docs/PH_OilGasFacilitiesPHSafetyRisks.pdf (on file with the *University of the Pacific Law Review*).

130. *Id.*

131. See SREBOTNJAK & ROTKIN-ELLMAN, *supra* note 10, at 4 (“These communities, highly vulnerable to additional pollution from oil and gas development, consist primarily of Latinos/Hispanics (69 percent), African Americans (10 percent), and Asian Americans (11 percent).”).

132. See generally *QuickFacts Arvin City, California*, U.S. CENSUS BUREAU, <https://www.census.gov/quickfacts/fact/chart/arvincitycalifornia/RHI725219#RHI725219> (last visited Aug. 9, 2020) (on file with the *University of the Pacific Law Review*) (indicating that 94.1% of Arvin residents identify as Hispanic or Latino); *Ozone Results from Calenviroscreen 3.0*, CAL. OFFICE OF ENVTL. HEALTH HAZARD ASSESSMENT, <https://oehha.maps.arcgis.com/apps/webappviewer/index.html?id=5eb3c82ae44b43c680bc32564032812d> (enter “Arvin, CA, USA” in the search box) (last visited Aug. 9, 2020) (on file with the *University of the Pacific Law Review*) (showing Arvin is in the ninety-eighth percentile for ozone concentrations).

133. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted); see LAST CHANCE ALLIANCE, *supra* note 8, at 18 (explaining that oil and gas production are a serious threat to California's water supplies because of the toxic chemicals used in the production process that can contaminate surface and groundwater).

134. See LAST CHANCE ALLIANCE, *supra* note 8, at 18 (discussing that California's disposal wells sometimes inject toxic wastewater into protected aquifers).

135. *Getting Up to Speed, Ground Water Contamination*, EPA C7, <https://www.epa.gov/sites/production/files/2015-08/documents/mgwc-gwc1.pdf> (last visited Sept. 28, 2020) (on file with the *University of the Pacific Law Review*).

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through transportation spills and leaks.¹³⁶ Oil and gas production disproportionately threatens the water resources of minority communities living near facilities.¹³⁷ Hydraulic fracking's water-intensive process often occurs in minority communities, where water is also the most scarce.¹³⁸ AB 345's minimum setback distance would have protected communities against the negative health impacts of air and water pollution caused by oil and gas activity.¹³⁹

3. The Importance of AB 345's Enhanced Public Participation Measures

AB 345 sought to establish an environmental justice and grant-based program to enhance participation.¹⁴⁰ Typically, people living near oil and gas wells are excluded from the regulatory process.¹⁴¹ A frequent barrier for communities of color resisting the placement of oil and gas production is the lack of information on how production facilities impact their health.¹⁴² Although AB 345 would not have immediately remedied the obstacles communities face in combatting oil and gas development, AB 345 would have been a step forward.¹⁴³

C. AB 345 is Not Likely an Unconstitutional Taking

The oil and gas industry argued that AB 345's setback distances would cause unconstitutional regulatory takings because setbacks would interfere with their right to profit from their property.¹⁴⁴ A critical issue on whether AB 345's setback distances would have resulted in unconstitutional takings would likely depend on

136. See OFFICE OF RESEARCH AND DEV., HYDRAULIC FRACTURING FOR OIL AND GAS: IMPACTS FROM THE HYDRAULIC FRACTURING WATER CYCLE ON DRINKING WATER RESOURCES IN THE UNITED STATES 1–2 (2016), available at <https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990> (on file with the *University of the Pacific Law Review*) (finding that fracking can pollute drinking water during transportation spills and when hydraulic fracturing fluids are injected into wells with inadequate mechanical integrity).

137. See SREBOTNJAK & ROTKIN-ELLMAN, *supra* note 10, at 4, 6 (indicating oil and gas production pollutes water sources, which disproportionately impacts communities of color).

138. See LAST CHANCE ALLIANCE, *supra* note 8, at 18 n.14 (“[F]inding 98 percent of fracking occurs in areas of high or extreme water stress.”).

139. Compare AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted) (adopting setback distances would mitigate air and water pollution caused by oil and gas extraction), with SREBOTNJAK & ROTKIN-ELLMAN, *supra* note 10, at 4, 6 (explaining that oil and gas pollution disproportionately impacts people of color, who are more likely to live near oil and gas activity).

140. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted).

141. See WITHGOTT & LAPOSATA, *supra* note 12, at 138 (explaining that minority communities are exposed to a greater share of environmental pollution because they often have less access to information on environmental health risks).

142. See *id.* at 138.

143. See AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted) (adopting setback distances would help protect the health of communities living near oil and gas activity).

144. See Lynch, *supra* note 9, at 42 (explaining that the oil and gas industry threaten to file takings claims to prevent oil and gas setback regulations).

the definition of “oil and gas activities.”¹⁴⁵ However, the oil and gas industry’s takings claims would not likely succeed due to the rarity of takings and the California government’s overriding interest in protecting public health.¹⁴⁶

Subsection 1 discusses why setback distances would likely not result in total takings.¹⁴⁷ Subsection 2 argues that buffer zones would not likely cause partial takings.¹⁴⁸ Subsection 3 proposes using zoning and nonconforming use law to phase out oil and gas wells within buffer zones.¹⁴⁹

1. *The Lucas Test and AB 345*

Under the *Lucas* test, AB 345 would not likely have caused unconstitutional regulatory total takings because courts generally require a near total elimination of a property’s value.¹⁵⁰ A court would probably not conclude that AB 345 completely deprives an operator’s property value because operators could still profit from wells outside buffer zones, but are still within the property parcel.¹⁵¹ Even if a setback distance completely prohibited surface production on an operator’s property, operators would likely still retain their property’s value through mineral rights.¹⁵²

If the court concluded that a setback resulted in total deprivation of a property’s value, the state would still be able to raise a successful background principles defense.¹⁵³ In *Lucas*, the Court provides the example that restricting a

145. See *Infra* Subsection IV.C1–C3 (discussing the potential constitutional problems with AB 345).

146. See ELKIND & LAMM, *supra* note 20, at 31 (asserting that governments can argue that setback distances are not takings because government can utilize their police power to enact laws that protect public health).

147. *Infra* Subsection IV.C.1.

148. *Infra* Subsection IV.C.2.

149. *Infra* Subsection IV.C.3.

150. ELKIND & LAMM, *supra* note 20, at 31.

151. Compare *Palazzolo v. R.I.*, 533 U.S. 606, 616, 630–31 (2001) (determining that even a 94% reduction in a landowner’s property value due to wetland protection law did not completely deprive the property of its value and therefore, did not constitute a total regulatory taking under *Lucas*), with AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted) (indicating that AB 345 would only regulate oil and gas activities within buffer zones).

152. See *What is Surface Rights?*, L. DICTIONARY, <https://thelawdictionary.org/surface-rights/> (last visited Aug. 30, 2020) (on file with the *University of the Pacific Law Review*) (“Rights of a landowner to the exterior or upper section of land.”); *What is Mineral Rights?*, L. DICTIONARY, <https://thelawdictionary.org/mineral-rights/> (last visited Aug. 30, 2020) (on file with the *University of the Pacific Law Review*) (“Rights to search for and remove minerals from the land belonging to the owner”); Eric Schlabs, *Legal Challenges to Fracking Regulation*, REG. REV. (Aug. 18, 2015), <https://www.theregreview.org/2015/08/18/schlabs-fracking-regulation/> (on file with the *University of the Pacific Law Review*) (“[A] fracking company will have a difficult time defining the scope of its property so narrowly that a ban renders the property valueless. Even if state law allows the mineral estate to be considered separately from the surface property . . . a total takings claim cannot proceed if the mineral estate in question has any remaining value or might one day produce oil and gas without fracking.”).

153. See *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1029 (1992) (establishing that the background principles of property and nuisance law defense defeats a total takings claim if a landowner’s current use of the land is already unlawful); See *Lynch*, *supra* note 9, at 63 (“[I]f the government is able to prove . . . a background principle could impose the same limit as the regulation” then the government does not need to pay just

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power plant found on a fault line would not be a taking because of the background principles defense.¹⁵⁴ AB 345 advocates could have argued that oil and gas wells pose dangers similar to nuclear plants and are therefore a nuisance.¹⁵⁵ Similar to nuclear power plants, oil and gas are important energy sources; however, they pose serious public health and safety concerns, especially when located near communities.¹⁵⁶ AB 345's setback distance would not likely satisfy the very rare *Lucas* requirement that a regulation completely deprive a property of its value.¹⁵⁷

2. The Penn Central Test and AB 345

AB 345 would also not likely cause a partial taking under the *Penn Central* balancing factors.¹⁵⁸ The first factor examines the economic impact of the regulation.¹⁵⁹ Courts could have distinguished old and new wells within buffer zones to determine AB 345's economic impact.¹⁶⁰ The economic impact on older wells would be less because operators have already extracted fossil fuel and profited from those wells.¹⁶¹ Therefore, the first *Penn Central* factor could have weighed in favor for AB 345's advocates or opponents depending on the number of old and new wells within AB 345's setback distance.¹⁶²

Under the second *Penn Central* factor, a court would examine whether AB 345's setback distances interfered with a landowner's reasonable investment-

compensation to the landowner).

154. See *Lucas*, 505 U.S. at 1029 (finding that regulatory action to limit a nuclear power plant found on an earthquake fault line, even if the owner made improvements, is not a taking due to background principles of property and nuisance law).

155. Compare *Lucas*, 505 U.S. at 1029 (concluding that regulating a nuclear power plant on a fault line was not a taking because of background principles defense), and Todd D. Brody, *Examining the Nuisance Exception to the Takings Clause: Is There Life for Environmental Regulations After Lucas*, 4 Fordham Envtl. L. Rev. 287, 304 (2011) (asserting the nuclear power plant in *Lucas* was not a taking because the plant was a nuisance), with BUTLER ET AL., *supra* note 128 (showing evidence that over 300 chemicals used in oil and gas extraction are associated with health issues ranging from respiratory problems to cancer, which AB 345 advocates could argue are also a nuisance).

156. See LAST CHANCE ALLIANCE, *supra* note 8, at 12 ("California's oil and gas production releases pollutants to the air, water, and soil that endanger surrounding communities.").

157. *Lucas*, 505 U.S. at 1029; AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted).

158. See *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978) (listing the *Penn Central* factors: (1) the economic impact of the regulation, (2) the regulation's interference with reasonable investment-backed expectations, and (3) the character of the governmental action).

159. *Id.*

160. See ELKIND & LAMM, *supra* note 20, at 32 (comparing older and newer wells and asserting older wells, some of which are decades old, are less valuable because operators have already extracted oil and gas).

161. *Id.*

162. Compare *Penn Cent. Transp. Co.*, 438 U.S. at 124 (concluding that the court considers the economic impact of a regulation when assessing a takings claim), with ELKIND & LAMM, *supra* note 20, at 32 (asserting that the number of old and new wells within a property parcel could impact whether an oil or gas operator's takings claim is successful).

backed expectations.¹⁶³ Highly regulated industries should expect future regulation.¹⁶⁴ Since oil and gas extraction is a highly regulated industry, operators should reasonably expect regulations, such as AB 345, that will restrict their activity.¹⁶⁵ In addition, due to California's declining oil production and the looming clean-up costs of abandoned wells, courts would likely determine AB 345's impact on investment-backed expectations to be minimal.¹⁶⁶ Operators' investments are at risk because of clean-up costs for approximately 35,000 abandoned wells across the state.¹⁶⁷ Thus, a court would likely conclude that AB 345's impact on investment-backed expectations would likely be marginal in comparison to operators' more pressing financial concerns.¹⁶⁸

The third *Penn Central* factor examines the character of the government action and whether it arose from a "physical invasion."¹⁶⁹ The character of AB 345 was to prevent harm to communities living near oil and gas wells.¹⁷⁰ In addition, governments have broad discretion under their police power authority to enact laws that protect public health.¹⁷¹ AB 345's setback distances would likely fall firmly within California's police power to protect public health.¹⁷² Therefore, the third

163. *Penn Cent. Transp. Co.*, 438 U.S. at 124.

164. *Compare* *Penn Cent. Transp. Co.*, 438 U.S. at 124 (showing that the court examines a property owner's investment-backed expectations to determine if a regulation caused a partial taking) *and* *Appolo Fuels, Inc. v. United States*, 381 F.3d 1338, 1349 (Fed. Cir. 2004) (indicating that the court will consider in particular three factors to determine a party's reasonable expectations: (1) whether the plaintiff operated in a "highly regulated industry," (2) whether the plaintiff was aware of the problem that spawned the regulation at the time it purchased the allegedly taken property, and (3) whether the plaintiff could have reasonably anticipated the possibility of such regulation in light of the regulatory environment at the time of purchase."), *with* *District Intown Props., Ltd. v. District of Columbia*, 198 F.3d 874, 884 (D.C. Cir. 1999) ("Businesses that operate in an industry with a history of regulation have no reasonable expectation that regulation will not be strengthened to achieve established legislative ends.").

165. *Compare* E. Allison & B. Mandler, *U.S. Regulation of Oil and Gas Operations*, AM. GEOSCIENCES INST., <https://www.americangeosciences.org/geoscience-currents/us-regulation-oil-and-gas-operations> (on file with the *University of the Pacific Law Review*) (last updated June 1, 2018) (showing that the oil and gas industry has been regulated for over 100 years in some form by federal, state, and local governments), *with* AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted) (serving as an example of a regulation that the oil and gas industry should reasonably expect).

166. *Id.*; *see* LAST CHANCE ALLIANCE, *supra* note 8, at 20 fig.1 (showing that oil production between 1985 and 2017 declined by 56%); Olalde & Menezes, *supra* note 1 (emphasizing that California has approximately 35,000 abandoned wells costing on average between \$40,000 and \$152,000 to clean up).

167. *See* Olalde & Menezes, *supra* note 1 (describing that thousands of oil business historically went out of business due to lack of funds for well clean-up costs).

168. *Compare* *Penn Cent. Transp. Co.*, 438 U.S. at 124 (indicating that the courts consider a property owner's reasonable investment-backed expectations), *with* Olalde & Menezes, *supra* note 1 (describing that thousands of oil business historically went out of business due to lack of funds for well clean-up costs; suggesting operators' investment expectations are more likely to suffer from looming clean-up costs than setback distances).

169. *Penn Cent. Transp. Co.*, 438 U.S. at 124.

170. *See* AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted) (indicating AB 345 sought to protect public health by guiding CalGEM to adopt setback distances).

171. *See* U.S. CONST. amend. X ("The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."); *see also* CAL. CONST. art. XI, § 7 ("A county or city may make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws.").

172. U.S. CONST. amend. X; CAL. CONST. art. XI, § 7.

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Penn Central factor would weigh heavily against a finding for a partial taking.¹⁷³

The first *Penn Central* factor may favor oil and gas operators in finding a partial taking because AB 345 could impact the value of wells within setbacks.¹⁷⁴ However, due to the second and third *Penn Central* factors, a court would likely conclude that AB 345 would not cause a partial taking.¹⁷⁵ Under the second *Penn Central* factor, highly regulated industries, such as the oil and gas industry, should expect future regulations.¹⁷⁶ In addition, AB 345's impact on an operator's reasonable investment-backed expectations would likely be minimal in comparison to the oil and gas industry's other financial obligations.¹⁷⁷ For the third *Penn Central* factor, AB 345 would promote public health, an important public interest.¹⁷⁸

3. Avoiding Unconstitutional Takings: Phasing Oil and Gas Wells as a Nonconforming Land Use

To avoid unconstitutional takings litigation triggered by AB 345, governments can phase-out oil and gas production as a nonconforming land use.¹⁷⁹ A regulation can terminate a project with vested rights without triggering a taking if the government provides a reasonable amortization phase-out period to recover

173. *Penn Cent. Transp. Co.*, 438 U.S. at 124.

174. *Compare Penn Cent. Transp. Co.*, 438 U.S. at 124 (showing that the court considers the economic impact of a regulation when assessing a partial takings claim), *with ELKIND & LAMM, supra* note 20, at 32 (arguing that the number of old and new wells within a property parcel could impact whether an oil or gas operator's takings claim succeeds).

175. *Compare Penn Cent. Transp. Co.*, 438 U.S. at 124 (indicating that the court considers a property owner's reasonable investment-backed expectations and the character of the government action to determine whether a regulation caused a partial taking), *and District Intown Props., Ltd.*, 198 F.3d 874, 884 (D.C. Cir. 1999) (showing that highly regulated industries should expect future regulation), *with Olalde & Menezes, supra* note 1 (reporting that oil and gas operators are at risk of bankruptcy due to well clean-up costs; suggesting that operators' investment expectations are more likely to suffer from clean-up costs rather than setback distance regulations), *and AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020)* (as amended on Aug. 7, 2020, but not enacted) (serving as an example of a regulation that the oil and gas industry, a highly regulated field, should reasonably expect).

176. *Compare Penn Cent. Transp. Co.*, 438 U.S. at 124 (indicating that the courts assess a property owner's reasonable investment-backed expectations to determine whether a government regulation caused an unconstitutional partial taking), *and District Intown Props., Ltd.*, 198 F.3d 874, 884 (D.C. Cir. 1999) (demonstrating that highly regulated industries should expect future regulation), *with E. Allison & B. Mandler, supra* note 165 (explaining that the oil and gas industry has been regulated for over 100 years in some form by federal, state, and local governments), *with AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020)* (as amended on Aug. 7, 2020, but not enacted) (serving as an example of a regulation that the oil and gas operators should reasonably expect).

177. *Compare Penn Cent. Transp. Co.*, 438 U.S. at 124 (showing that the courts examine a property owner's reasonable investment-backed expectations to assess whether a government regulation caused a partial taking), *and Olalde & Menezes, supra* note 1 (reporting that California oil and gas operators are threatened by looming clean-up costs), *with AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020)* (as amended on Aug. 7, 2020, but not enacted) (suggesting AB 345's setback distances would likely be a).

178. *Infra* Subsection IV.C.2.

179. *ELKIND & LAMM, supra* note 20, at 32.

investment costs.¹⁸⁰ Newer wells might take years to phase-out to recover a landowner's investment.¹⁸¹ However, older wells that have fully recovered their initial investment costs might not even be protected as a nonconforming land use.¹⁸² Environmental activists recommend a five-year amortization period for oil and gas wells.¹⁸³ Therefore, to prevent takings lawsuits prompted by AB 345, California can still phase-out oil and gas setback distances through amortization.¹⁸⁴

D. Eliminating the Patchwork of Local Setback Distance Laws

AB 345 would have standardized setback laws and provided a better safeguard for the public health of minority communities living near oil and gas wells.¹⁸⁵ The current patchwork of buffer zone laws leaves many vulnerable communities living near production sites at risk.¹⁸⁶ Most local governments near oil and gas wells lack the political strength to adopt setback distance laws.¹⁸⁷ Buffer zone laws already adopted by some cities and counties are insufficient because the setback distances in those laws are too short to adequately protect public health.¹⁸⁸ With AB 345, the issue of adopting a buffer zone law would have no longer been a question—it would have been mandatory statewide.¹⁸⁹

Further, the various local setback ordinances produce jurisdictional conflict between cities and counties.¹⁹⁰ For example, the City of Arvin clashed with Kern County about whether the county's oil permitting laws superseded the city's 300-foot buffer zone.¹⁹¹ Jose Gurrola, the Mayor of Arvin, stated that the city's 300-foot setback distance applies within the city's boundaries.¹⁹² However, in the unincorporated areas surrounding Arvin, Kern County's ordinances are

180. *Id.*

181. *Id.*

182. *Id.*

183. *Id.* at 32 n.209.

184. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted); ELKIND & LAMM, *supra* note 20, at 32.

185. Compare AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted) (adopting setback distances would protect the public health of communities living close to oil and gas activity), with SREBOTNJAK & ROTKIN-ELLMAN, *supra* note 10, at 4 (showing evidence that minority communities are more likely to live near oil and gas operations).

186. See *supra* Section.II.C (discussing setback distances in California cities that range from 200-750 feet).

187. See WITHGOTT & LAPOSATA, *supra* note 12, at 138 (explaining that a barrier for minority communities in adopting environmental laws is the discrepancy in influence over politicians in comparison the oil and gas industry).

188. Compare LONG ET AL., *supra* note 32, at 45 (recommending an approximately 2,500 setback distance), with ELKIND & LAMM, *supra* note 20, at 30 (listing several cities that already adopted setback distances, including Arvin, Carson, Huntington Beach, Long Beach, and Signal Hill, that range from 200 feet to 750 feet).

189. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted).

190. See Gurrola Interview, *supra* note 4 (explaining Kern County challenged Arvin's setback distance and claiming Kern's laws preempt Arvin's).

191. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted); Gurrola Interview, *supra* note 4.

192. Gurrola Interview, *supra* note 4.

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controlling.¹⁹³ AB 345’s standardization of buffer zones would have provided more protection for the public safety of minority communities living near production than the current patchwork of local setback ordinances.¹⁹⁴

AB 345 would have also been a stronger safeguard for public health because it used agencies to enforce its setback distances.¹⁹⁵ AB 345 would have utilized a powerful agency framework to protect public health.¹⁹⁶ The state government has the necessary financial resources to effectively create buffer zone regulations and enforce them.¹⁹⁷ California could have modeled its buffer zones laws after Colorado, a state that utilizes an agency-led approach to setback distance laws.¹⁹⁸

E. California Should Adopt a Buffer Zone of at least 2,500 Feet and Define “Sensitive Receptors” Broadly

AB 345 was an opportunity for the state to mandate a 2,500-foot buffer zone and define “sensitive receptors” broadly to protect minority communities living near production facilities.¹⁹⁹ AB 345’s language required that setback distances be based on “health, scientific, and other data.”²⁰⁰ Studies found that the most significant exposure to toxic air contaminants occur within 2,500 feet from oil and gas production.²⁰¹ Setting the buffer zone at 2,500 feet would not have stopped air and water pollution; however, the distance would have mitigated negative health outcomes.²⁰²

The language of AB 345 left open the option for state agencies to further refine the definition of sensitive receptors.²⁰³ California’s state agencies could have looked towards the local statutes of cities and counties and their setback distances

193. *Id.*

194. *Compare* AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted (creating a statewide and uniform setback distance would help the public health of communities living near oil and gas facilities), *with* SREBOTNJAK & ROTKIN-ELLMAN, *supra* note 10, at 4 (showing evidence that people of color are more likely to live close to oil and gas activity and therefore, suffer from oil and gas pollution).

195. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted).

196. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted).

197. *Id.*

198. *See* ELKIND & LAMM, *supra* note 20, at 46 (describing Colorado’s setback laws).

199. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted); *see* LONG ET AL., *supra* note 32, at 45 (reporting that people experience the most exposure to air contaminants within 2,500 feet of an oil and gas well; therefore, the report recommends governments adopt 2,500-foot setback laws).

200. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted); LONG ET AL., *supra* note 32, at 45.

201. LONG ET AL., *supra* note 32, at 45.

202. *See id.* (explaining setback distances have been adopted to reduce exposure to pollution caused by oil and gas production).

203. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted); *see* CAL. HEALTH & SAFETY CODE § 42705.5(a) (West 2020) (listing that sensitive receptors include schools, hospitals, day care centers, and other locations that the district or state board determine).

ordinances as examples.²⁰⁴ The City of Signal Hill and the counties of Kern and Ventura could serve as an example.²⁰⁵ They define sensitive receptors to broadly include any building used for public gathering.²⁰⁶ Adopting a 2,500-foot setback distance would have strengthened current local city and county buffer zones, none of which approach the necessary distance to adequately protect public health.²⁰⁷

F. AB 345 and Employment in the Oil and Gas Industry

In the debate over AB 345, oil and gas workers were frequently pitted against environmental activists.²⁰⁸ However, the fight to protect public health for communities near production facilities was a fight for these workers' lives.²⁰⁹ Oil and gas workers are not separate from the community.²¹⁰ AB 345 would have protected the neighborhoods where workers live, the schools their children attend, and the hospitals they go to when they are sick.²¹¹

Oil and gas workers had valid concerns about AB 345's impact on their livelihood; however, setbacks laws would not automatically equate to job loss.²¹² Ingrid Brostrom, an environmental advocate, explained that oil and gas dependent regions need to diversify their economies.²¹³ She suggested investing in electrification that capitalizes on the Central Valley's importance as a transportation center.²¹⁴ She also recommended developing jobs that rehabilitate

204. *See supra* Section.II.C (describing setback distances in California that vary from 200-750 feet).

205. *See* SIGNAL HILL, CAL., MUNICIPAL CODE ch. 16.16 (1990) (indicating Signal Hill already adopted setback distances); KERN COUNTY, CAL., ORDINANCE CODE tit. 19, ch. 19.98 (2015) (showing Kern County already has setback distance laws); VENTURA COUNTY, CAL. ORDINANCE CODE div. 8, ch. 1 (1985) (demonstrating Ventura County already passed setback distance laws).

206. SIGNAL HILL, CAL., MUNICIPAL CODE ch. 16.16 (1990); KERN COUNTY, CAL., ORDINANCE CODE tit. 19, ch. 19.98 (2015); VENTURA COUNTY, CAL. ORDINANCE CODE div. 8, ch. 1 (1985).

207. *See supra* Section.II.C (showing that setback distances in California vary from 200-750 feet).

208. *See* CalGEM Public Health Virtual Meeting (June 2, 2020) (transcript available at <https://www.conservation.ca.gov/calgem/Documents/public-health/June%2020%20CalGEM%20Public%20Health%20Virtual%20Meeting%20Transcript.pdf>) [hereinafter CalGEM Public Health Virtual Meeting] (on file with the *University of the Pacific Law Review*) (showing union-represented oil and gas workers expressing their opposition to AB 345 because of their concerns that AB 345 will take away their jobs).

209. *Id.*

210. *See id.* (demonstrating that oil and gas workers are not separate from the communities impacted by oil and gas activity).

211. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Jan 27, 2019, but not enacted); *see* CalGEM Public Health Virtual Meeting, *supra* note 204 (documenting people participating and explaining the impacts oil and gas activity has on their communities).

212. *See* Telephone Interview with Ingrid Brostrom, Assistant Director for the Center on Race, Poverty & the Environment (June 5, 2020) [hereinafter Brostrom Interview] (notes on file with the *University of the Pacific Law Review*) (suggesting that the government should intervene to create new work opportunities to replace oil and gas jobs).

213. *See id.* (“We’re getting to a point where we have to change . . . the cycle of downturns decimates the whole economy.”).

214. *Id.*

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the environment, such as soil and well remediation jobs.²¹⁵ Thus, AB 345’s setback distances did not mean that oil and gas workers would not have jobs.²¹⁶

G. Reviving Setback Distances Through CalGEM

Although AB 345 did not pass, CalGEM can still adopt setback distance regulations through the rulemaking process.²¹⁷ Under California’s APA, any person can petition CalGEM to consider buffer zones with a 2,500-foot setback distance.²¹⁸ Setback regulations fall under CalGEM’s scope of authority to promote public health and the environment.²¹⁹ Public health and environmental advocates pushed for AB 345 because it would have forced CalGEM to adopt setback regulations.²²⁰ However, with AB 345’s demise, CalGEM should listen to communities living near oil and gas wells and to their demands for better setback distances from production sites.²²¹

V. CONCLUSION

California’s current approach to protect the health and safety of families living near oil and gas production—particularly vulnerable communities of color—is inadequate.²²² As hydraulic fracking allows oil and gas activity closer to people’s homes, California must take aggressive action to protect its residents.²²³ Studies demonstrate that proximity to oil and gas production is associated with serious health issues.²²⁴ Despite threats of unconstitutional regulatory takings claims, AB 345 would not have likely resulted in takings under either the *Lucas* or the *Penn Central* test.²²⁵ AB 345 would have used California’s powerful agency framework

215. *Id.*

216. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Jan 27, 2019, but not enacted); Brostrom Interview, *supra* note 208.

217. CAL. GOV’T CODE §§ 11340–11361 (West 2020).

218. *Id.* § 11340.6.

219. *Id.* § 11342.1.

220. *See* AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Jan 27, 2019, but not enacted) (indicating in the language of the proposed bill that CalGEM would be required to adopt setback distance regulations).

221. *See* CalGEM Public Health Virtual Meeting, *supra* note 204 (showing community members demanding California to adopt statewide setback distances).

222. *See* SREBOTNJAK & ROTKIN-ELLMAN, *supra* note 10, at 9 (2014) (indicating that approximately 5.4 million people live within a mile of one or more oil and gas wells, which is roughly to 1 in 5 African Americans, 1 in 6 Hispanic/Latinos, 1 in 7 Asians, and 1 in 9 Whites).

223. *See* Lynch, *supra* note 9, at 42 (indicating that hydraulic fracking increasingly allows operators to extract oil and gas in populated urban and suburban areas).

224. *See* LONG ET AL., *supra* note 32, at 431 (“The . . . closer a population is to active oil and gas development, the more elevated the exposure, primarily to air pollutants but also to water pollutants . . .”).

225. *See supra* Section IV.C (asserting setback laws will not result in total or partial takings).

to create uniformity across current setback distances.²²⁶ Also, AB 345 did not equate to job loss.²²⁷ With specific planning and investment, California could move towards a future that provides job alternatives to the oil and gas industry.²²⁸ Although AB 345 would have helped California take a step forward in addressing racism and protecting public health, the state can still move forward by adopting a setback distance through rulemaking.²²⁹

226. *See supra* Section IV.D (arguing AB 345 standardizes California’s current patchwork of local setback distances).

227. Brostrom Interview, *supra* note 208.

228. *Id.*

229. AB 345, 2020 Leg., 2019–2020 Sess. (Cal. 2020) (as amended on Aug. 7, 2020, but not enacted); CAL. GOV’T CODE §§ 11340–11361 (West 2020).

* * *