

# A.B. 2447—NITROGEN POLLUTION REDUCTION ACT

## PURPOSE

Despite California’s recognizing a human right to water in 2012, hundreds of thousands of Californians—mostly in low-income communities of color—lack access to safe drinking water, in part due to nitrogen pollution.<sup>1</sup> Only about 30 to 50 percent of the fertilizer applied to California’s croplands are used by plants, meaning that much of the nitrogen fertilizer applied is lost to the environment.<sup>2</sup> The Nitrogen Pollution Reduction Act, A.B. 2447, requires California to protect clean water for people and ecosystems by reducing nitrogen fertilizer pollution.<sup>3</sup>

## BACKGROUND

Excess fertilizer leaches into groundwater and contaminates drinking water with nitrates. Nitrate-contaminated drinking water is linked to “blue baby” syndrome and higher rates of leukemia, lymphoma, and childhood brain cancers.<sup>4</sup> Blue baby syndrome is a condition that prevents infants from maintaining sufficient blood oxygen levels, causing them to suffer and sometimes die. Between 2011 and 2019, an estimated 1,730 cases of blue baby syndrome were reported in California, clustered primarily in counties in the Central Valley with elevated nitrates in drinking water.<sup>5</sup>

Excess fertilizer also runs off into lakes and rivers, fueling harmful algal blooms across California that sicken animals and children.<sup>6</sup> Seventy-eight imperiled species in the United States, including California’s Bay checkerspot butterfly and arroyo toad, are threatened by nitrogen pollution.<sup>7</sup>

Moreover, fertilizer overuse drives climate change through emissions of nitrous oxide (N<sub>2</sub>O), a greenhouse gas 273 times more potent than carbon dioxide.<sup>8</sup> N<sub>2</sub>O also depletes the ozone layer, which protects people from skin cancers and cataracts.<sup>9</sup> The United Nations estimates that this ozone loss will cause 4 million premature deaths around the world in the next decade and 20 million premature deaths by 2050.<sup>10</sup>

California officials have known about the dangers of nitrogen pollution since the 1960s. More than two decades ago, the State Water Resources Control Board created the Irrigated Lands Regulatory Program to address the overapplication of nitrogen fertilizers. Unfortunately, the program is not working.<sup>11</sup> Wells continue testing above safe drinking water thresholds, harmful algal blooms are larger and more frequent, and nitrous oxide emissions from fertilizer continue unabated.<sup>12</sup> Every year of continued pollution adds decades to groundwater cleanup time frames.<sup>13</sup>

## SUMMARY OF THE ACT

The Nitrogen Pollution Reduction Act directs state officials to establish clear limits on how much nitrogen fertilizer can be applied to croplands and leach into waterways. The act encourages the adoption of sustainable farming practices that reduce nitrogen pollution and allows for streamlined compliance pathways for smaller, diversified farmers.

Other countries have shown that limits on nitrogen pollution work.<sup>14</sup> Policies limiting overapplication in Denmark led to a 30 to 50 percent reduction in nitrate pollution in streams between 1990 and 2018 and a 45 percent reduction in coastal waters.<sup>15</sup>

The act will establish California as a leader in protecting clean water and establishing more sustainable and climate-resilient farming systems.

## Endnotes

- 1 Human Right to Water, California Water Code § 106.3, 2012, [https://leginfo.legislature.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=WAT&sectionNum=106.3](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=WAT&sectionNum=106.3); State Water Resources Control Board, SAFER Dashboard, accessed February 27, 2026, [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/saferdashboard.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/saferdashboard.html); Central Coast Regional Water Quality Control Board, *Assessment of Interim Drinking Water Needs and Costs in Central Coast Areas Affected by Agricultural Nitrate Groundwater Contamination*, 2025, [https://www.waterboards.ca.gov/centralcoast/board\\_info/agendas/2025/aug/item8\\_att1.pdf](https://www.waterboards.ca.gov/centralcoast/board_info/agendas/2025/aug/item8_att1.pdf); Chris Austin, “State Water Board: CV-Salts Implementation Update,” Maven’s Notebook, June 23, 2021, <https://mavensnotebook.com/2021/06/23/state-water-board-cv-salts-implementation-update/>.
- 2 Thomas P. Tomich et al., eds., *The California Nitrogen Assessment: Challenges and Solutions for People, Agriculture, and the Environment* (University of California Press, June 2016), <https://www.ucpress.edu/books/the-california-nitrogen-assessment/paper>.
- 3 California Legislature, Assembly Bill 2447, 2026, [https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\\_id=202520260AB2447](https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202520260AB2447). The title of the bill will be amended.
- 4 Allison R. Sherris et al., “Nitrate in Drinking Water During Pregnancy and Spontaneous Preterm Birth: A Retrospective Within-Mother Analysis in California,” *Environmental Health Perspectives* 129, no. 5 (May 2021), <https://ehp.niehs.nih.gov/doi/full/10.1289/EHP8205>.
- 5 “Comments on Draft Dairy Order,” letter to Philip G. Wyels, Assistant Chief Counsel, California State Water Resources Control Board, from Stanford Environmental and Natural Resources Law and Policy Program, Stanford Law School Climate and Energy Policy Program, and Stanford Woods Institute for the Environment, December 19, 2024, <https://woods.stanford.edu/sites/woods/files/media/file/cepp-comments-on-draft-dairy-order.pdf>.
- 6 NRDC, “Harmful Algal Blooms,” accessed February 27, 2026, <https://www.nrdc.org/resources/harmful-algal-blooms>.
- 7 Daniel L. Hernández et al., “Nitrogen Pollution Is Linked to US Listed Species Declines,” *BioScience* 66, no. 3 (2016): 213–22, <https://doi.org/10.1093/biosci/biw003>.
- 8 Greenhouse Gas Protocol, “IPCC Global Warming Potential Values,” August 7, 2024, <https://ghgprotocol.org/sites/default/files/2024-08/Global-Warming-Potential-Values%20%28August%202024%29.pdf>.
- 9 United Nations Environment Programme and Food and Agriculture Organization of the United Nations, *Global Nitrous Oxide Assessment*, November 2024, <https://wedocs.unep.org/20.500.11822/46562>.
- 10 Ibid.
- 11 Arohi Sharma and Daniel Rath, “It’s Time for California to Act on Nitrogen Pollution,” NRDC, June 12, 2025, <https://www.nrdc.org/bio/arohi-sharma/its-time-california-act-nitrogen-pollution>.
- 12 Thomas Harter, “SBX2 I Nitrate in Drinking Water: UC Davis ‘N Tracking Analysis’ to Estimate Potential Groundwater N Loading,” University of California–Davis, accessed February 27, 2026, [https://www.cdfa.ca.gov/is/fldrs/frep/pdfs/7\\_Harter\\_Mass\\_Balance\\_V2.pdf](https://www.cdfa.ca.gov/is/fldrs/frep/pdfs/7_Harter_Mass_Balance_V2.pdf); California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality*, accessed February 27, 2026, <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>.
- 13 California Regional Water Quality Control Board, Central Coast Region, “General Waste Discharge Requirements for Discharges from Irrigated Lands,” Attachment A, April 15, 2021, [https://www.waterboards.ca.gov/centralcoast/water\\_issues/programs/ilp/docs/ag\\_order4/2021/ao4\\_att\\_a.pdf](https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ilp/docs/ag_order4/2021/ao4_att_a.pdf).
- 14 Daniel Rath et al., “Scientific Literature Review for Questions Posed to the Upcoming Second Statewide Agricultural Expert Panel,” letter to Karen Mogus, Chief Deputy Director, State Water Resources Control Board, from NRDC et al., July 31, 2025, <https://www.nrdc.org/sites/default/files/2025-08/scientific-literature-review-of-nitrogen-related-limits.pdf>.
- 15 Maya Korb and J. P. Rose, “Voluntary Is Not Enough: States Need to Intervene to Address Nitrogen Pollution,” NRDC, September 12, 2025, <https://www.nrdc.org/media/voluntary-not-enough-states-need-intervene-address-nitrogen-pollution#steps>.