



**Office of the New York State  
Attorney General**

**Letitia James  
Attorney General**

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September 29, 2025

By e-mail to [staff@oal.ca.gov](mailto:staff@oal.ca.gov) and [cotb@arb.ca.gov](mailto:cotb@arb.ca.gov)

OAL Reference Attorney  
300 Capitol Mall, Suite 1250  
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Re: Comment on CARB's Sept. 22, 2025 *Emergency Amendment and Adoption of Vehicle Emissions Regulations*

Dear OAL Reference Attorney:

The Attorneys General of New York, Maryland, Massachusetts, New Jersey, Oregon, and Rhode Island and the Director of the Rhode Island Department of Environmental Management submit this comment on the California Air Resources Board (CARB)'s adoption of emergency vehicle emissions regulations (Emergency Regulations). For the reasons set forth below, our States fully support CARB's Emergency Regulations because they help protect our residents and environment from air pollution and the effects of climate change.

In the litigation concerning the validity of the waivers EPA granted to CARB for the regulations known as Advanced Clean Cars II (ACCII) for light-duty vehicles and Heavy-Duty Low-NO<sub>x</sub> Omnibus (Omnibus), some automakers have argued that CARB's earlier-adopted regulations are also invalid. Notice of Emergency Amendment and Adoption of Vehicle Emissions Regulations (Notice) at 2. The Emergency Regulations therefore clarify that the California motor vehicle emissions regulations that preceded ACCII and Omnibus remain operative and enforceable while the litigation concerning ACCII and Omnibus is pending. *Id.* at 1. During this time of regulatory uncertainty, CARB is giving light-duty manufacturers the option to choose to certify to either the criteria pollutant and GHG emissions portions of the Advanced Clean Cars I program, or the ACCII standards. *Id.* at 6. Similarly, makers of medium- and heavy-duty vehicles may also choose to certify to either the Omnibus regulations or the antecedent regulations, which include the Phase I GHG regulations for medium- and heavy-duty engines and vehicles for which EPA granted a waiver in 2016. Notice at 5 n.11, 6.

Our states have used Clean Air Act § 177 to adopt California’s more stringent emissions standards for well over a decade—and in some cases, for many decades—to fight air pollution and climate change. In states such as New York, Massachusetts, and New Jersey, the adoption of California’s standards has led to improvements in air quality overall, but significant work still needs to be done, especially in environmental justice communities, which have suffered and continue to suffer from inequitable air pollution burdens. To the extent automakers choose to comply with the more stringent ACCII standards, that choice will benefit our states. But even if some do not, the particulate matter (PM) standard for the LEV III portion of ACCI are more stringent than federal Tier 3 standards. Notice at 8. As explained below, certain areas of our states, such as New York City, have high levels of PM, which, among other things, worsens already inequitable air pollution burdens in environmental justice communities. *See I.B., infra*. Our states also rely on California’s standards to help combat rising GHG emissions, which exacerbate climate change and its increasingly devastating impacts on our states. To the extent automakers choose to comply with the more stringent requirements of ACCII and Omnibus,<sup>1</sup> our states will suffer fewer environmental harms.

In addition, any suggestion that the Emergency Regulations create a “patchwork” of regulations, either because they are a second set of emissions regulations in addition to the federal regulations, or because they allow automakers to choose to certify to either of two sets of standards, is without merit. The Clean Air Act was structured to allow only California—not a patchwork of states—to adopt its own regulations, and indeed, Congress later amended the Act to allow other states to adopt California’s regulations. Moreover, to the extent that CARB allows automakers to choose to certify to either ACCII and Omnibus or their predecessor regulations, that option creates compliance flexibility, not a patchwork.

### **Our States’ Adoption of California’s Emissions Regulations**

In 1990, New York became the first state to use §177 of the Clean Air Act to adopt California’s more stringent emissions standards, beginning with model year 1993. New York was part of a coalition of seven Northeastern states, including Massachusetts and Rhode Island, that had pledged in 1989 to adopt California’s emissions standards. Massachusetts adopted regulations that went into effect for model year 1995, and Rhode Island with model year 2008. In addition, Oregon

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<sup>1</sup> Automakers have had sufficient time to prepare for complying with these regulations. CARB adopted Advanced Clean Cars II in 2022, <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars>, and stakeholder discussions preceded the adoption. Similarly, CARB adopted Omnibus in 2020, and its adoption was preceded by the establishment of optional low-NO<sub>x</sub> standards in 2013. *See* <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-low-nox/about>.

adopted regulations that went into effect with model year 2009, while New Jersey adopted regulations that went into effect in 2009, and Maryland in 2011. New York's then-Commissioner of Environmental Protection, Thomas Jorling, said that the state was adopting the standards because existing—that is, federal—controls had failed to reduce air pollution enough to enable New York to meet federal air quality standards.<sup>2</sup> Since then, our states have continued to adopt California's more stringent criteria pollutant standards, as well as its greenhouse gas (GHG) emission standards, to protect our residents' public health.

## **I. California's Motor Vehicle Emissions Standards Help Protect Our Residents' Public Health.**

Light-, medium-, and heavy-duty vehicles are one of the two main sources of the criteria pollutants that pollute the air our state residents breathe and the greenhouse gases that drive climate change.<sup>3</sup> Indeed, in 2022, the most recent year for which there is data, emissions from transportation *increased* (albeit slightly)<sup>4</sup> in New York, although emissions from every other category of fuel combustion declined relative to 1990, New York's baseline year. This increase, despite decades of New York's adoption of California's increasingly stringent standards, is one example of our states' critical need for more automakers to comply voluntarily with the ACCII and Omnibus standards during this period of uncertainty.

### **A. More Stringent Emissions Standards Help Our States Maintain Air Quality Gains and Prevent Worsening Air Pollution.**

As a result of adopting California's vehicle emissions standards, our states have made enormous air quality improvements over the past few decades. For example, the New York City metropolitan area, which has historically dealt with severe air quality issues, has been able to reduce emissions of four key criteria air

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<sup>2</sup> *New York State Adopts Tough Pollution Rules*, N.Y. Times, Sept. 28, 1990, B1.

<sup>3</sup> New York State Dep't of Env't Conservation, 2024 Statewide GHG Emissions Report at v, tbl. ES.2 (2024), <https://dec.ny.gov/sites/default/files/2024-12/summaryreportnysghgemissionsreport.pdf> (hereinafter 2024 NYS GHG Emissions Report). Unless otherwise specified, discussion of the 2024 NYS GHG Emissions Report uses the same terms as the Intergovernmental Panel on Climate Change (IPCC); New Jersey Dept. of Env. Prot., New Jersey Ambient Air Monitoring Network Assessment 2025 at 7 (July 2025), <https://dep.nj.gov/wp-content/uploads/airmon/network-assessment/nj-network-assessment-2025.pdf>; State of Oregon Dep't of Env. Quality, Oregon's Greenhouse Gas Emissions: 1990-2016 at Fig. ES 1 (July 2018), <https://olis.oregonlegislature.gov/liz/201711/Downloads/CommitteeMeetingDocument/149741>.

<sup>4</sup> New York State Dep't of Env't Conservation, 2024 Statewide GHG Emissions Report at v, tbl. ES.2 (2024), <https://dec.ny.gov/sites/default/files/2024-12/summaryreportnysghgemissionsreport.pdf> (hereinafter 2024 NYS GHG Emissions Report). Unless otherwise specified, discussion of the 2024 NYS GHG Emissions Report uses the same terms as the Intergovernmental Panel on Climate Change (IPCC).

pollutants: fine particulate matter (PM<sub>2.5</sub>); nitrogen dioxide (NO<sub>2</sub>); nitric oxide (NO); and sulfur dioxide (SO<sub>2</sub>).<sup>5</sup> Between 2009, when New York City first began monitoring these pollutants, and 2023, the last year for which data is available, the amount of these pollutants has dropped significantly: -29% for PM<sub>2.5</sub>; -38% for NO<sub>2</sub>; -60% for NO; and -98% for SO<sub>2</sub>.<sup>6</sup> Similarly, in New Jersey, since the state adopted California's standards in 2009, PM<sub>2.5</sub>, and NO<sub>2</sub> have all trended downwards.<sup>7</sup> SO<sub>2</sub> would have decreased as well except for a spike between 2012 and 2017 attributable to a coal-burning plant in Pennsylvania; since the closure of that plant, SO<sub>2</sub> levels have resumed a downward trend.<sup>8</sup>

Nevertheless, motor vehicles continue to be responsible for a significant percentage of nitrogen oxide (NO<sub>x</sub>) emissions,<sup>9</sup> which react with volatile organic compounds (VOCs) in sunlight to form ozone. For example, motor vehicles account for 67% of NO<sub>x</sub> emissions<sup>10</sup> in New York, and in New York City, they account for approximately 28% of NO<sub>x</sub> emissions.<sup>11</sup> Consequently, the New York City metropolitan area remains in serious nonattainment for the 2015 8-hour ozone NAAQS<sup>12</sup> and in severe nonattainment for the 2008 8-hour ozone NAAQS.<sup>13</sup>

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<sup>5</sup> N.Y. State Dep't of Env't Conservation, *Low and Zero Emission Vehicles (LEV/ZEV)*, <https://dec.ny.gov/environmental-protection/air-quality/controlling-motor-vehicle-pollution/low-and-zero-emission-vehicles> (last visited Sept. 25, 2025).

<sup>6</sup> *New York City Community Air Survey 2008-2023*, N.Y.C. Dep't of Health, <https://a816-dohbep.nyc.gov/IndicatorPublic/data-features/nyccas/> (last visited Sept. 25, 2025).

<sup>7</sup> New Jersey Dept. of Env. Prot., *2023 New Jersey Air Quality Report* at 1-3 – 1-6 (December 2024), <https://dep.nj.gov/wp-content/uploads/airmon/nj-aq-report-2023.pdf>.

<sup>8</sup> *Id.*

<sup>9</sup> N.Y.C. Dep't of Env't Protection, *Air Quality*, <https://www.nyc.gov/site/dep/environment/transportation-emissions.page> (last visited Sept. 25, 2025).

<sup>10</sup> N.Y. State Dep't of Env't Cons., *Clean Transportation NY, Using the Volkswagen Settlement to Drive Clean Transportation in New York* at 9 (2024), <https://dec.ny.gov/sites/default/files/2024-11/nysvwmitigationplanrev.pdf>.

<sup>11</sup> N.Y.C. Dep't of Env't Protection, *Air Quality*, *supra* note 9.

<sup>12</sup> Designations of Areas for Air Quality Planning Purposes; New York, New Jersey, Connecticut; New York Northern New Jersey-Long Island, NYNJ-CT 2015 8-Hour Ozone Nonattainment Area; Reclassification to Serious, 89 Fed. Reg. 60,314 (July 25, 2024).

<sup>13</sup> N.Y. State Dep't of Env't Conservation, Final Proposed Revision: New York State Implementation Plan for the 2008 Ozone National Ambient Air Quality Standards, NY-NJ-CT Moderate Nonattainment Area (Nov. 2021), [https://extapps.dec.ny.gov/docs/air\\_pdf/sipseriouso3nyma.pdf](https://extapps.dec.ny.gov/docs/air_pdf/sipseriouso3nyma.pdf) (requesting that EPA reclassify the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment area (referred to as the New York metropolitan area) to "severe" nonattainment as expeditiously as possible); *see also* 87 Fed. Reg. 60,926 (Oct. 7, 2022) (reclassifying the New York-

Motor vehicles also account for 11% of fine particulate matter in the New York City metropolitan area, where the State's PM<sub>2.5</sub> level is the highest.<sup>14</sup> Once inhaled, PM<sub>2.5</sub> enters the bloodstream where it can cause or worsen asthma, cancer, stroke, lung disease and cardiovascular disease. Motor vehicle pollution contributes to an estimated 320 premature deaths and 870 emergency department visits annually.<sup>15</sup>

Among motor vehicles, medium- and heavy-duty diesel-fueled trucks and buses account for a disproportionate amount of NO<sub>x</sub> and PM<sub>2.5</sub> emissions. In New York, although these vehicles make up only 5% of registered vehicles, they are responsible for 52% of NO<sub>x</sub> emissions, 45% of PM<sub>2.5</sub> emissions and 24% of GHGs from all on-road vehicles.<sup>16</sup> To the extent automakers choose to comply with the Omnibus regulations, which set stricter standards for NO<sub>x</sub> and PM, that would help improve our states' air quality.

#### B. More Stringent Standards Better Protect Environmental Justice Communities Which Suffer Disproportionately from Air Pollution.

While air pollution affects all residents of our states, environmental justice communities suffer the most because air pollution burdens are inequitably distributed across our states. Numerous studies by the government and non-governmental organizations have demonstrated that the areas with the poorest air quality are disproportionately communities of color,<sup>17</sup> including indigenous

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Northern New Jersey-Long Island, NY-NJ-CT nonattainment area to severe for the 2008 8-hour ozone NAAQS).

<sup>14</sup> *Air Quality*, N.Y.C. Dep't of Env't Protection, *supra* note 9.

<sup>15</sup> Iyad Kheirbek et al., *The Contribution of Motor Vehicle Emissions to Ambient Fine Particulate Matter Public Health Impacts in New York City: A Health Burden Assessment*, 15 *Env't Health* 89 (2016), <https://ehjournal.biomedcentral.com/articles/10.1186/s12940-016-0172-6>.

<sup>16</sup> Kevin X. Shen, Union of Concerned Scis., *Exposure to Diesel Particulate Pollution in New York State* (2021), <https://www.ucs.org/resources/diesel-pollution-ny#top>.

<sup>17</sup> See Maria Cecilia Pinto de Moura, David Reichmuth & Daniel Gatti, Union of Concerned Scis., *Inequitable Exposure to Air Pollution from Vehicles in New York State* (2019), <https://www.ucs.org/sites/default/files/attach/2019/06/Inequitable-Exposure-to-Vehicle-Pollution-NY.pdf>; Michelle Meyer & Tim Dallman, *The Real Urban Emissions Initiative, Air Quality and Health Impacts of Diesel Truck Emissions in New York City and Policy Implications* (2022), <https://theicct.org/wp-content/uploads/2022/04/true-diesel-trucks-nyc-apr22.pdf>; Paul Allen et al., MJB&A, *Newark Community Impacts of Mobile Source Emissions: A Community-Based Participatory Research Analysis* (Nov. 2020), [http://www.njeja.org/wp-content/uploads/2021/04/NewarkCommunityImpacts\\_MJBA.pdf](http://www.njeja.org/wp-content/uploads/2021/04/NewarkCommunityImpacts_MJBA.pdf); Oregon Dep't of Env. Quality, *Cleaner Air Oregon and Environmental Justice (Cleaner Air Oregon)*, <https://storymaps.arcgis.com/stories/d2da40e45cab4515937d56890c5f107f>.

communities.<sup>18</sup> As a result of inequitable transportation and housing planning decisions, such communities are often adjacent to heavily used highways producing on-road air pollution.<sup>19</sup> For example, areas of Newark and Elizabeth, New Jersey that are located adjacent to ports and related infrastructure face disproportionate health impacts from truck pollution, and these communities are largely populated by people of color and/or people with low incomes.<sup>20</sup> Likewise, in New York, Asian Americans are exposed to twice as much PM<sub>2.5</sub> pollution as white residents; Latinos 81% more, and African Americans 72% more.<sup>21</sup> On the other hand, more than two-thirds of white residents live in areas that are below the state average for on-road transportation pollution. A census tract in the West Bronx in New York City is not only the most polluted tract in the State, but also in the Northeast and Mid-Atlantic region.<sup>22</sup> In New Jersey, the most polluted census tract is in Camden County, where 71% of the population is Latino.<sup>23</sup>

Given that medium- and heavy-duty trucks are responsible for a significant percentage of PM<sub>2.5</sub> and NO<sub>x</sub> emissions, reducing diesel emissions from these vehicles is a critical step to reducing this inequitable air pollution burden. Compliance with the Omnibus regulations would thus help reduce air pollution for our states' disadvantaged populations. The States therefore support CARB's decision to give manufacturers the option to choose to certify to the stricter standards during this period of uncertainty.

### C. More Stringent Standards Help Combat the Increasingly Dire Effects of Climate Change.

The 2023 Fifth National Climate Assessment determined that the effects of climate change—including changes in temperature, precipitation, and sea level rise—are apparent in every region of the United States.<sup>24</sup> An enormous body of

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<sup>18</sup> Cleaner Air Oregon, *supra* note 17, at 3.

<sup>19</sup> Union of Concerned Scis., Inequitable Exposure to Air Pollution in New York State, *supra* note 17, at 1–2.

<sup>20</sup> Allen et al., *supra* note 17.

<sup>21</sup> *Id.* at 4.

<sup>22</sup> *Id.* at 2.

<sup>23</sup> Maria Cecilia Pinto de Moura & David Reichmuth, Union of Concerned Scis., Inequitable Exposure to Air Pollution From Vehicles in the Northeast and Mid-Atlantic (2019), <https://www.ucsusa.org/sites/default/files/attach/2019/06/Inequitable-Exposure-to-Vehicle-Pollution-Northeast-Mid-Atlantic-Region.pdf>.

<sup>24</sup> Allison R. Crimmins et al., U.S. Glob. Change Rsch. Program, Fifth National Climate Assessment, Ch. 1, at 1-6 – 1-7, fig. 1.1 (2023) [hereinafter “NCA5”], [https://repository.library.noaa.gov/view/noaa/61592/noaa\\_61592\\_DS1.pdf](https://repository.library.noaa.gov/view/noaa/61592/noaa_61592_DS1.pdf).

scientific research affirms that human activity—primarily, the burning of fossil fuels—is exacerbating climate change, harming public health and the environment across the nation. As the National Academies of Sciences, Engineering, and Medicine declared in September 2025, “[T]he evidence for current and future harm to human health and welfare created by human-caused [greenhouse gases] is beyond scientific dispute.”<sup>25</sup>

As discussed in Appendix 1, our states are currently experiencing the devastating effects of climate change, including rising temperatures, more intense extreme heat events, increased precipitation, more frequent and catastrophic storms, and rising sea levels. As average surface temperatures continue to rise and extreme weather events grow more frequent and severe, our states will continue to face direct and compounding challenges to protect the health and welfare of our residents, sustain our economies, and preserve our environment and natural resources. While more stringent GHG standards for motor vehicles will not eliminate these harms, they will help to mitigate some of the most dire effects of climate change experienced in our states.

## **II. The Emergency Regulations Do Not Create a “Patchwork” of Regulation.**

Any suggestion that CARB’s Emergency Regulations will somehow create a “patchwork” of regulation because they are a second set of regulations in addition to federal regulations is belied by the Clean Air Act, which Congress structured to allow only California—not a patchwork of states—to adopt its own regulations. Moreover, the 1977 Amendments to the Clean Air Act indicate that Congress considered California’s adoption of its own emissions standards to be a success because it added § 177, allowing other states to adopt California’s standards if they wished to do so.

### **A. Congress Structured § 209 of the Clean Air Act to Avoid “Patchwork” Regulation.**

In 1965, Congress enacted the Motor Vehicle Air Pollution Control Act, the first federal law to regulate vehicle emissions. *Motor & Equip. Mfrs. Ass’n, Inc. v. E.P.A.*, 627 F.2d 1095, 1108 (D.C. Cir. 1979) (MEMA). At that point, California had already been regulating vehicle emissions for almost a decade, *id.*, due to its exceptionally severe air pollution problems. However, since Congress’ first foray into the field did not expressly preempt state regulation, several states enacted their own regulations, causing automakers to raise the “spectre of an anarchic

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<sup>25</sup> Nat’l Acads. of Scis., Eng’g, & Med., *Effects of Human-Caused Greenhouse Gas Emissions on U.S. Climate, Health, and Welfare 2* (2025), <https://doi.org/10.17226/29239>.

patchwork of federal and state regulatory programs.” *Id.* at 1109. On the other hand, California as well as other states, wanted to maintain their authority to regulate vehicle emissions.

Congress balanced these competing interests when it adopted the Air Quality Act, the precursor to the Clean Air Act, in 1967 by preempting all state emissions standards but excepting California’s if certain conditions were met. In what became § 209(b) of the Clean Air Act, Congress directed EPA to waive the preemption provision in § 209(a) as long as California had determined that its standards would be “more stringent” than federal standards. By giving California that authority, Congress recognized that “the advantages of the California exception included the benefits for the Nation to be derived from permitting California to continue its experiments in the field of emissions control[.]” *id.* at 1109–10—a prediction borne out by the federal government modeling some of its own regulations on California’s. *Id.* at 1110 n.34. At the same time, by limiting the waiver to only California, Congress protected the auto industry from having to comply with more than two sets of emissions standards.

#### B. Congress Amended the Clean Air Act to Expand the “Benefits” of California’s “Experiments.”

The 1977 Amendments to the Clean Air Act indicate that Congress considered the compromise reflected in § 209 a success. First, the 1977 Amendments gave California more flexibility in adopting its own motor vehicle standards. Specifically, California no longer had to determine that its standards were “more stringent” than Federal standards, but only that its standards would be “in the aggregate, at least as protective of public health and welfare than applicable Federal standards[.]” *Id.* at 1110.

Second, Congress added § 177 of the Clean Air Act. Section 177 allows other states to opt into California’s emission standards as long as their standards are identical to California standards, § 177(1), and the state adopts the standards with at least two years’ lead time for automakers. § 177(2). Congress thus continued to protect automakers from having to comply with more than two sets of standards—and also enlarged automakers’ market for their “California cars.” Since Congress added § 177, 17 states have adopted all or part of California’s emissions standards program,<sup>26</sup> and approximately 35% of the country’s light-duty fleet meets California’s emission standards.

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<sup>26</sup> See *Advanced Clean Cars II*, Cal. Air Res. Bd., <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii> (last visited Sept. 25, 2025).

The two-car system created by the Clean Air Act has worked. Since 1967—that is, for over a half-century—California has received over 75 waivers from EPA.<sup>27</sup> Through those waivers, California has required progressively cleaner performance from internal combustion engines, accelerating the development of technologies from now-standard catalytic converters to zero-emissions vehicles. And other states have been able to use their authority under § 177 to achieve those same benefits for their residents.

### **III. The Emergency Regulations Provide Automakers with Greater Compliance Flexibility.**

CARB’s clarification that the regulations preceding ACCII and Omnibus are operative does not create a “patchwork” of regulation; on the contrary, the Emergency Regulations provide automakers with greater compliance flexibility in a time of regulatory uncertainty. Under the Emergency Regulations, automakers can choose to certify their vehicles to either ACCII or Omnibus *or* to their predecessor regulations. Notice at 6. Given that ACCI was adopted by CARB in 2012 and includes standards through the 2025 and subsequent model years,<sup>28</sup> automakers should easily be able to certify their vehicles to the criteria pollutant and GHG emissions sections of ACCI. Similarly, the GHG regulations for medium-and heavy-duty vehicles was adopted in 2013, well over a decade ago. Accordingly, CARB’s Emergency Regulations do not impose additional burdens on automakers but instead provide flexibility in a time of regulatory uncertainty.

Respectfully Submitted,

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<sup>27</sup> See EPA, Vehicle Emissions California Waivers and Authorizations, <https://www.epa.gov/state-and-local-transportation/vehicle-emissions-california-waivers-and-authorizations> (last updated July 24, 2025).

<sup>28</sup> See *Advanced Clean Cars Program*, Cal. Air Res. Bd., <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about> (last visited Sept. 25, 2025).

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**Appendix 1 to Comment of the State of New York et al.  
on CARB’s Sept. 22, 2025 *Emergency Amendment and Adoption of Vehicle  
Emissions Regulations***

**State Climate Change Harms**

1. New York

New York State is already experiencing the devastating effects of climate change, including rising temperatures, increased precipitation, more frequent and extreme weather events, rising sea levels, and degraded air quality. These effects are projected to worsen. For instance, New York experienced its hottest year on record in 2024, and July 2024 was Albany’s hottest month since recordkeeping began in 1874.<sup>1</sup> From May 1 to September 29, 2024, extreme heat resulted in 3,014 heat-related emergency department visits in New York State (excluding New York City, which reports data separately), far exceeding the historical baseline of 2,576 visits.<sup>2</sup> Days over 90°F have already increased markedly from 1961 to 2021, and that trend is expected to continue.<sup>3</sup> For instance, in Albany, the number of 90°F days is projected to increase from an average of less than 10 days per year to over 30 days per year by 2050, and 50 days per year by the 2080s.<sup>4</sup>

New York State has also experienced marked increases in total precipitation and heavy precipitation events, and these trends are expected to continue through the end of this century.<sup>5</sup> From 1901 to 2022, total annual precipitation in New York State increased by 10% to 20%, and total precipitation is projected to continue increasing by about 6% to 17% by the end of the century.<sup>6</sup>

Indeed, storms previously considered “once-in-100-year” events have occurred nearly twice as often as expected in recent years.<sup>7</sup> In the 2010s, Tropical Storm Lee, Hurricane Irene, and Hurricane Sandy, collectively killed over 50 people and caused billions of dollars in damages. Since then, New York has experienced numerous severe storms that have produced significant rainfall.<sup>8</sup> Among these were Tropical

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<sup>1</sup> N.Y. State, Extreme Heat Action Planning Progress Update, July 2024 – June 2025 at 3 (May 2025), <https://dec.ny.gov/sites/default/files/2025-05/ehapreadinessupdate.pdf>.

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> *Precipitation*, N.Y. State Climate Impacts Assessment, <https://nysclimateimpacts.org/explore-the-assessment/new-york-states-changing-climate/nysc-precipitation/> (last visited Sept. 25, 2025).

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

Storm Henri and Hurricane Ida, which occurred within two weeks of each other in 2021. Tropical Storm Henri broke several meteorological records in New York City, including the most rain measured within an hour, with 1.94 inches recorded in Central Park; the most rain in a day with 4.45 inches total; and the biggest two-day rainfall event since Hurricane Irene with 7.04 inches total.<sup>9</sup> Only eight days later, Hurricane Ida shattered many of these records—some parts of the City experienced 3.15 inches of rainfall in one hour, and the National Weather Service issued the first ever flash flood emergency for New York City.<sup>10</sup> In total, Hurricane Ida caused 18 deaths in New York and 7.5 billion dollars’ worth of damage, including flood damage to 11,000 homes.<sup>11</sup>

Climate change is also causing sea levels to rise, which has intensified the damage from coastal storms. Sea levels in the Northeastern United States have already risen by 5 to 6 inches from 2000 to 2020, and levels are projected to rise another foot on average by 2050.<sup>12</sup> New York City is exceptionally vulnerable to sea level rise, due to its 520-mile coastline and significant low-lying coastal lands that are home to more than 218,000 residents. By the 2050s, approximately 43 miles of New York City’s coastline (including many residential neighborhoods) could be at risk of daily or weekly tidal inundation, even during non-storm conditions.<sup>13</sup>

In addition, climate change has already led to an increase in wildfires, and wildfire activity is only expected to increase across North America in the coming decades, bringing poor air quality to New York.<sup>14</sup> During the 2020 wildfire season, and again in July 2021, wildfire smoke from the Western United States caused New

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<sup>9</sup> Andy Newman & Ellen Barry, *Tropical Storm Henri Brings Power Outages and Record Rain to Northeast*, N.Y. Times (Aug. 22, 2021), <https://www.nytimes.com/2021/08/22/nyregion/tropical-storm-henri.html?searchResultPosition=1>.

<sup>10</sup> Jesus Jiménez, *New York City Faces the First ‘Flash Flood Emergency’ in Its History*, N.Y. Times (Sept. 2, 2021), <https://www.nytimes.com/2021/09/02/nyregion/new-york-city-faces-the-first-flash-flood-emergency-in-its-history.html>.

<sup>11</sup> Press Release, N.Y. State Governor Kathy Hochul, Governor Hochul Announces Recovery Action Plan to Assist New Yorkers Impacted by Deadly Storm (Aug. 29, 2022), <https://www.governor.ny.gov/news/governor-hochul-announces-hurricane-ida-recovery-action-plan-assist-new-yorkers-impacted>.

<sup>12</sup> *Sea Level Rise Viewer*, NOAA, [https://coast.noaa.gov/slr/#/layer/sce/0/-8319827.074465485/5017920.2680523/9.000/satellite/125/0.8/2050/interHigh/noAccretion/NOS\\_Minor](https://coast.noaa.gov/slr/#/layer/sce/0/-8319827.074465485/5017920.2680523/9.000/satellite/125/0.8/2050/interHigh/noAccretion/NOS_Minor) (last updated Apr. 11, 2025).

<sup>13</sup> N.Y.C., *A Stronger More Resilient City*, Ch. 3: Coastal Protection 46 (June 2013), [http://www.nyc.gov/html/sirr/downloads/pdf/final\\_report/Ch3\\_Coastal\\_FINAL\\_singles.pdf](http://www.nyc.gov/html/sirr/downloads/pdf/final_report/Ch3_Coastal_FINAL_singles.pdf).

<sup>14</sup> IPCC, Chapter 14: North America in Climate Change 2022 – Impacts, Adaptation and Vulnerability: Working Group II Contribution to the Sixth Assessment Report 1948 (2023), <https://www.cambridge.org/core/books/climate-change-2022-impacts-adaptation-and-vulnerability/north-america/B182CC819A36A0F9FD27A5DA184F47A2>.

York City to experience some of the worst air quality in the world.<sup>15</sup> New York City was once again blanketed in smoke from Canadian wildfires in June 2023, resulting in the highest measurements of PM<sub>2.5</sub> since recording began in 1999.<sup>16</sup>

Wildfire smoke exacerbates the poor air quality issues environmental justice communities already suffer. *See* Section I.B above. People living in New York's poorest neighborhoods are twice as likely to have had an asthma attack in the past year compared to those in the wealthiest neighborhoods, and Black communities may have less access to healthcare for treating asthma than white communities.<sup>17</sup> Children are also especially vulnerable because they breathe more air per minute than adults. As a result, the percentage of asthma-related emergency room visits for children is expected to rise.<sup>18</sup> In the Northeast, climate change is expected to cause 200–300 more ozone-related deaths in 2050 than in 2000.<sup>19</sup> Another study estimates an increase of 360 more deaths per year due to poor air quality by 2090.<sup>20</sup>

## 2. Maryland

With 3,100 miles of shoreline, Maryland is particularly vulnerable to rising sea levels and the more extreme weather events associated with climate change: shoreline erosion, coastal flooding, storm surges, inundation, saltwater intrusion, and contamination of groundwater supplies. Rising sea levels and increased storm duration and intensity could have devastating and far-reaching impacts on the Atlantic coast and the Chesapeake Bay ecosystem affecting recreational and economic benefits enjoyed by Maryland and its visitors. Although Maryland's coastal areas are particularly vulnerable, all areas of the state are at risk.

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<sup>15</sup> *See, e.g.*, Oliver Milman, *New York Air Quality Among Worst in World as Haze from Western Wildfires Shrouds City*, *Guardian* (July 21, 2021), <https://www.theguardian.com/us-news/2021/jul/21/new-york-air-quality-plunges-smoke-west-coast-wildfires>.

<sup>16</sup> Aatish Bhatia, Josh Katz & Margot Sanger-Katz, *Just How Bad Was the Pollution in New York?*, *N.Y. Times* (June 9, 2023) <https://www.nytimes.com/interactive/2023/06/08/upshot/new-york-city-smoke.html>.

<sup>17</sup> *See* Gina Jiménez, *ER Visits for Asthma in New York City Soared as Wildfire Smoke Blanketed the Region*, *Inside Climate News* (June 14, 2023), <https://insideclimatenews.org/news/14062023/new-york-er-asthma-wildfire-smoke/>.

<sup>18</sup> Perry E. Sheffield et al., *Modeling of Regional Climate Change Effects on Ground-Level Ozone and Childhood Asthma*, 41 *Am. J. Preventive Med.* 251–57 (2011), <https://www.ajpmonline.org/action/showPdf?pii=S0749-3797%2811%2900346-1>.

<sup>19</sup> Lesly-Ann L. Dupigny-Giroux et al., *U.S. Glob. Change Rsch. Program, Fourth National Climate Assessment*, Ch. 18: Northeast (2018), [https://mde.maryland.gov/programs/water/WetlandsandWaterways/Documents/August%201,%202023%20Supplemental%20Briefing%20from%20Waterkeepers%20Chesapeake%20and%20Lower%20Susquehanna%20Riverkeepers/2.b%20NCA4\\_Ch18\\_Northeast\\_Full.pdf](https://mde.maryland.gov/programs/water/WetlandsandWaterways/Documents/August%201,%202023%20Supplemental%20Briefing%20from%20Waterkeepers%20Chesapeake%20and%20Lower%20Susquehanna%20Riverkeepers/2.b%20NCA4_Ch18_Northeast_Full.pdf).

<sup>20</sup> *Id.*

Maryland is projected to experience between 2.1 and 5.7 feet of sea level rise over the next century.<sup>21</sup> In fact, the sea level could be as much as 2.1 feet higher in 2050 along Maryland's shorelines than it was in 2000.<sup>22</sup> Sea level rise could inundate some facilities of the Port of Baltimore, placing one of the most important ports along the East Coast, and one of the 20 largest ports in the nation, at risk. In 2023, for instance, the Port's cargo and cruise activity at the state-owned and private marine terminals generated 51,365 jobs, and \$5,331 million in personal wage and salary income for Maryland residents.<sup>23</sup>

In terms of health impacts, like other states around the country, Maryland is experiencing increasing numbers of 90-degree days, markedly exacerbating heat-related illnesses and mortality, particularly among children, the elderly, and more vulnerable segments of the population. Additionally, more pavement and less tree coverage make environmental justice communities particularly vulnerable to heat-related illness. In 2024, Maryland experienced a significant increase in heat-related deaths, with 25 reported fatalities during the May–September monitoring period. This marks the highest number since at least 2019, surpassing the totals of 21 in both 2019 and 2020, 16 in 2021, 5 in 2022, and 9 in 2023.<sup>24</sup> By mid-century, rising temperatures could cause 27 additional deaths each summer in Baltimore alone.<sup>25</sup>

Maryland has experienced an increase in the frequency and intensity of extreme weather events, such as hurricanes, tornadoes, heavy rainfall, and heatwaves. These events have caused severe damage to homes, infrastructure, and natural habitats. Flooding resulting from heavy rainfall has affected low-lying areas and urban centers, leading to property damage and disruption of daily life for residents and a negative impact on the state's tourism industry. More frequent and severe storms cause significant financial damage to communities throughout the state. Indeed, Maryland experienced 85 extreme weather events between 1980 and 2024, and according to the National Oceanic Atmospheric Administration, the total recovery costs for Maryland during this time period were between \$10 billion to \$20 billion dollars. Some of these costs included property and infrastructure damage, crop loss, and loss of revenue to businesses. Maryland will not be immune from

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<sup>21</sup> *Id.* at 13; Univ. of Md. Ctr. for Env't Sci., Sea-Level Rise Projections for Maryland (2023), <https://www.umces.edu/sea-level-rise-projections>.

<sup>22</sup> *Id.*

<sup>23</sup> Md. Port Admin., The 2023 Economic Impact of the Port of Baltimore in Maryland (2024), <https://mpa.maryland.gov/Documents/MarylandEconomicImpactofPOB2023.pdf>.

<sup>24</sup> Md. Dep't of Health, Maryland 2024 Heat-Related Illness Surveillance Summary Report (2024), <https://health.maryland.gov/preparedness/Documents/2024%20Heat-Related%20Illness%20Surveillance%20Summary%20Report.pdf>.

<sup>25</sup> Md. Comm'n on Climate Change, 2015 Annual Report 17–18, <https://mde.maryland.gov/programs/air/ClimateChange/MCCC/Publications/MCCC2015Report.pdf>.

more disasters in the coming decades, and the costs of recovery will grow in tandem.<sup>26</sup>

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<sup>26</sup> Md. Off. of the Comptroller, State Spending Series: Climate Change Costs (Apr. 2025), <https://www.marylandcomptroller.gov/content/dam/mdcomp/md/reports/research/state-spending-series-climate-change-costs-april-2025.pdf>.

### 3. Massachusetts

In the Bay State, temperatures and sea levels will both rise, causing their own impacts as well as contributing to more powerful coastal storms,<sup>27</sup> with their attendant potential for loss of life and infrastructure damage.

Massachusetts, together with the rest of the U.S. Northeast, is projected to experience one of the largest temperature increases in the contiguous United States compared to the 1851–1900 baseline,<sup>28</sup> with inland areas having about 25 more days above 90°F and coastal areas having about 19 more days above 90°F as compared to a 1950–2013 baseline.<sup>29</sup> The consequences of more frequent extreme heat days include an increase in heat-related illnesses and deaths. As of 2022, 19 annual premature deaths could be attributed to extreme temperatures in Massachusetts.<sup>30</sup> Increased summer temperatures also lead to poorer air quality,<sup>31</sup> which in turn lead to new childhood asthma diagnoses and premature death among adults aged 65 and over.<sup>32</sup> Currently, Massachusetts has the third highest prevalence of pediatric asthma in the nation, with nearly 10% of children under the age of 17 affected by asthma.<sup>33</sup> Warmer temperatures also accelerate the production of ground-level ozone, which impairs lung function and can result in increased hospital admissions and emergency room visits for people suffering from asthma, particularly children.<sup>34</sup>

Since 1990, Massachusetts has been affected by numerous major weather disasters, including Superstorm Sandy, a post-tropical storm in 2012 that+ was the

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<sup>27</sup> Mass. Off. of Energy & Env't Affairs, 2022 Massachusetts Climate Change Assessment: Volume 1 – Executive Summary at ES3 (Dec. 2022), <https://www.mass.gov/doc/2022-massachusetts-climate-change-assessment-december-2022-volume-i-executive-summary/download> (2022 Mass. Climate Change Assessment Vol. 1).

<sup>28</sup> Kate Marvel et al., U.S. Glob. Change Rsch. Program, Ch. 2: Climate Trends, in Fifth National Climate Assessment (2023), <https://repository.library.noaa.gov/view/noaa/61592>.

<sup>29</sup> Mass. Off. of Energy & Env't Affairs, 2022 Massachusetts Climate Change Assessment: Volume II – Statewide Report at 18–19 (Dec. 2022), <https://www.mass.gov/doc/2022-massachusetts-climate-change-assessment-december-2022-volume-ii-statewide-report/download> (2022 Mass. Climate Change Assessment Vol. 2).

<sup>30</sup> *Id.* at 33.

<sup>31</sup> 2022 Mass. Climate Change Assessment Vol. 1, *supra* note 27, at ES3, ES7.

<sup>32</sup> 2022 Mass. Climate Change Assessment Vol. 2, *supra* note 29, at 39–40.

<sup>33</sup> Adult Current Asthma Prevalence and Number by State or Territory, BRFSS 2021, tbl. C1, Ctrs. for Disease Control & Prevention, <https://www.cdc.gov/asthma/brfss/2021/tableC1.html> (last updated Mar. 23, 2023); Child Current Asthma Prevalence and Weighted Number by State or Territory, BRFSS 2021, tbl. C1, <https://www.cdc.gov/asthma/brfss/2021/child/tableC1.html> (last updated July 14, 2023).

<sup>34</sup> 2022 Mass. Climate Change Assessment Vol. 2, *supra* note 29, at 32 (linking “health and cognitive effects” to extreme heat), 39 (linking climate-induced temperature increases to degraded air quality).

most extreme and destructive event to affect the northeastern United States in over 40 years and the fifth costliest in the Nation's history.<sup>35</sup> Impacts in Massachusetts included strong winds, record storm tide levels, flooding of some coastal areas, and loss of power for 385,000 residents.<sup>36</sup> Massachusetts suffered an estimated \$300 million in property losses alone.<sup>37</sup> In January 2018, the storm surge from a powerful winter storm caused major coastal flooding and resulted in a high tide in Boston of 15.16 feet, the highest tide since recordkeeping began in 1921, surpassing even the infamous Blizzard of 1978.<sup>38</sup> Two months later, a March 2018 coastal storm resulted in a 14.67 foot tide in Boston, the third-highest on record.<sup>39</sup> That March 2018 coastal storm damaged 2,113 homes, including destroying 147 homes, and caused more than \$24 million in flood damage across six Massachusetts coastal counties.<sup>40</sup>

As a coastal state, Massachusetts is especially vulnerable to sea level rise caused by climate change, which is already exacerbating coastal flooding and erosion from storm events. The state is planning for projected sea level rise of up to two and a half feet by 2050 and four and a half feet by 2070, compared to 2008 levels, if global emissions are not significantly reduced. As a consequence, coastal communities are facing increasing flooding risks to homes and businesses, infrastructure, and natural resources.<sup>41</sup> According to the 2022 Massachusetts Climate Change Assessment, nearly 43% (3 million out of 7 million) of the Commonwealth's total population resides on or near the coast, including the region's major economic hub, the City of Boston.<sup>42</sup> Estimates of the projected direct flood damage to commercial and industrial structures in the Commonwealth's coastal areas are expected to more than double by 2030 (up to \$56 million) and the

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<sup>35</sup> Massachusetts Summary: Billion-Dollar Weather and Climate Disasters, NOAA Nat'l Ctrs. for Env't Info., <https://www.ncei.noaa.gov/access/billions/events/MA/1980-2024/?disasters%5b%5d=all-disasters> (last visited Sept. 29, 2025).

<sup>36</sup> Jennifer Runkle et al., NOAA Nat'l Ctrs. for Env't Info., Massachusetts State Climate Summary at 3-4 (2022), <https://statesummaries.ncics.org/downloads/Massachusetts-StateClimateSummary2022.pdf>.

<sup>37</sup> *Id.* at 4.

<sup>38</sup> Martin Finucane, *It's Official: Boston Breaks Tide Record*, Boston Globe (Jan. 5, 2017), <https://www.bostonglobe.com/metro/2018/01/05/official-boston-breaks-tide-record/UPbwDxgF0QXNOWvB9bcQ7L/story.html>.

<sup>39</sup> Christina Prignano, *The Noon High Tide Was Bad, but the Midnight High Tide Could Be Worse*, Boston Globe (Mar. 2, 2018), <https://www.bostonglobe.com/metro/2018/03/02/the-noon-high-tide-was-bad-but-midnight-high-tide-will-worse/m4O1PR8HRIoLsmx3mp2YvO/story.html>.

<sup>40</sup> Christian M. Wade, Baker Seeks Federal Disaster Funds for Storm Damages, Lawrence Eagle-Trib. (May 1, 2018), [https://www.eagletribune.com/news/merrimack\\_valley/baker-seeks-federal-disaster-funds-for-storm-damages/article\\_d2f0c7b4-bd75-5a8b-8a0c-4dedbe44a7b4.html](https://www.eagletribune.com/news/merrimack_valley/baker-seeks-federal-disaster-funds-for-storm-damages/article_d2f0c7b4-bd75-5a8b-8a0c-4dedbe44a7b4.html).

<sup>41</sup> *Id.*

<sup>42</sup> 2022 Mass. Climate Change Assessment Vol. 2, *supra* note 29, at 7.

incremental cost could reach as high as \$270 million annually by 2090, more than ten times higher than current levels.<sup>43</sup>

#### 4. New Jersey

Like its Northeastern neighbors, the Garden State is also experiencing rising temperatures, rising sea levels and the attendant flooding, and increased and more intense extreme weather events, as well as the resulting public health and economic consequences.

New Jersey's temperature is rising faster than the rest of the Northeastern United States. Since 1895, New Jersey's annual temperature has increased by 3.5°F.<sup>44</sup> June and July 2024 were the second hottest on record in New Jersey since the state began keeping records in 1895. Eight of the 10 warmest Julys, going back to 1895, have occurred since 2010.<sup>45</sup> The urbanization of large parts of New Jersey has resulted in the loss of forests, fields, and other open spaces, making heat waves especially pronounced.<sup>46</sup>

New Jersey has a large and economically important coastline, making it especially vulnerable to rising sea levels. New Jersey's total coastal zone encompasses 1,792 miles of coastline, and covers a vast portion of the state, including parts of 17 counties and 239 municipalities.<sup>47</sup> Eighty percent of New Jersey residents live year-round in the coastal zone.<sup>48</sup> This coastal zone is critical to a \$50 billion maritime industry<sup>49</sup> as well as the "Jersey Shore," a major tourist destination.<sup>50</sup>

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<sup>43</sup> *Id.* at A124– 25, tbl. A40. 2030 damages (\$56 million) are equal to the sum of the increase in damages from 2008 to "Current" (\$22 million) and the increase in damages from "Current" to 2030 (\$34 million).

<sup>44</sup> See N.J. Dep't of Env't Prot., 2020 New Jersey Scientific Report on Climate Change, ch. 4, <https://dSPACE.njstatelib.org/items/07c48e1a-6de6-4458-82d3-5dd70e31de50>.

<sup>45</sup> David A. Robinson, Once Again Hot, and This Time Around, Dry: July 2022 Recap, Off. of the N.J. State Climatologist (Aug. 6, 2022), <https://climate.rutgers.edu/stateclim/?section=menu&%20target=jul22>.

<sup>46</sup> 2020 New Jersey Scientific Report on Climate Change, *supra* note 44, at vii, 30.

<sup>47</sup> *Coastal Zone*, N.J. Dep't of Env't Prot., <https://dep.nj.gov/wlm/lrp/coastal-zone/> (last visited Sept. 29, 2025).

<sup>48</sup> N.J. Dep't of Env't Prot., 2021 New Jersey Climate Change Resilience Strategy 75, 98, <https://dep.nj.gov/climatechange/resilience/resilience-strategy/>.

<sup>49</sup> *Id.* at 77.

<sup>50</sup> Tourism Econ., The New Jersey Visitor Economy 2023 at 19 (2024), [https://visitnj.org/sites/default/files/2024-05/2023\\_Tourism\\_Economic\\_Impact\\_Study.pdf](https://visitnj.org/sites/default/files/2024-05/2023_Tourism_Economic_Impact_Study.pdf).

Both New Jersey’s population and economy, however, are threatened by sea level rise, which is rising faster along the Jersey coast than the global average. In Atlantic City, Cape May, and Sandy Hook, sea level rise has averaged 0.2 to 0.5 inches per year since 1900.<sup>51</sup> As the sea level has risen, the occurrence of high-tide floods has also increased. In Atlantic City, the frequency of tidal flooding events has increased from an average of one per year in the 1950s to an average of eight per year from 2007 to 2016.<sup>52</sup>

In addition to sea level rise, New Jersey is also threatened by increased precipitation levels and more intense storms, which have subjected New Jersey residents to more extreme storms, including coastal nor’easters, snowstorms, spring and summer thunderstorms, tropical storms, and even hurricanes.<sup>53</sup> Extreme storms that resulted in major flooding in the state include storm events in 2000, 2004, 2005, 2006, 2007, 2010, 2011, 2012, and 2016.<sup>54</sup> Superstorm Sandy, for example, caused widespread flooding inundation that damaged or destroyed 346,000 homes, and resulted in the loss of 38 lives, the loss of power to 2 million people for an extended period, and approximately \$30 billion in damages.<sup>55</sup>

## 5. Oregon

Oregonians from every corner of the state have experienced the devastating impacts of climate change. These impacts include choking wildfire smoke, deadly heat, flooding, landslides, transportation system disruption, drought, damaged fisheries, burnt forests, and the costs to taxpayers of responding to these impacts, to name a few.

The Oregon Health Authority (OHA) OHA has emphasized the health risks of inhalable fine particles generated from wildfires, identifying such particles as the “most concerning form of air pollution from wildfires.”<sup>56</sup> When inhaled, these particles “can travel deep into the lungs and into the bloodstream, causing damage to the lungs, heart and other organs.”<sup>57</sup> The Oregon Climate Change Research Institute’s (OCCRI) Seventh Oregon Climate Assessment similarly identifies the link between exposure to wildfire smoke and the “exacerbation of respiratory

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<sup>51</sup> 2020 New Jersey Scientific Report on Climate Change, *supra* note 44, at ix, 44.

<sup>52</sup> *Id.* at 45.

<sup>53</sup> *Id.* at xiii.

<sup>54</sup> *Id.* at 42.

<sup>55</sup> Remembering Superstorm Sandy, N.J. Dep’t of Env’t Prot., <https://dep.nj.gov/sandy-10/> (last visited Sept. 29, 2025).

<sup>56</sup> Or. Health Auth., Climate and Health in Oregon: 2023 Report 7, [https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/CLIMATECHANGE/Documents/FINAL%20Climate%20Health%20in%20Oregon%202023%20v071124%20\(1\).pdf](https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/CLIMATECHANGE/Documents/FINAL%20Climate%20Health%20in%20Oregon%202023%20v071124%20(1).pdf) (OHA 2023 Report).

<sup>57</sup> *Id.*

illnesses and an increase in cardiovascular emergencies, particularly among vulnerable populations and those with pre-existing conditions.”<sup>58</sup> The Seventh Assessment further states that the proportion of older adults with an increased vulnerability to smoke is expected to increase in Oregon.<sup>59</sup> Also, based on the larger and more extreme wildfires expected if greenhouse gas emissions do not decrease, wildfire smoke and associated health impacts are expected to rise. OHA has determined that additional costs for smoke-related asthma emergency department visits alone—not including other smoke-related impacts or other asthma-related costs—“will add an estimated \$99.7 million to health care costs in Oregon in the 2050s.”<sup>60</sup>

Rising global temperatures and the increased frequency of extreme heat events, both of which are associated with climate change,<sup>61</sup> are increasingly threatening human health in Oregon.<sup>62</sup> Indeed, extreme heat causes more human deaths than any other weather extreme.<sup>63</sup> Oregonians understand this threat acutely from the June 2021 “once-in-a-millennium” heat wave that caused at least 102 heat-related deaths in Oregon and 138 heat-related deaths in Washington State.<sup>64</sup>

OHA has also identified drought, harmful algal blooms, and vector-borne diseases as additional significant health threats associated with climate change.<sup>65</sup> Drought, among its other impacts, has left domestic well users without running water in many homes in Oregon.<sup>66</sup> Regarding algal blooms, warming waters allow for the spread of cyanobacteria, which “release[s] toxins in rivers, lakes and reservoirs can cause serious illness or death in pets, livestock and wildlife, and in sensitive individuals also cause a red, raised rash or skin, ear and eye irritation.”<sup>67</sup> And regarding vector-borne diseases, climate change “increases the number and

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<sup>58</sup> Erica Fleishman, Or. Climate Change Rsch. Inst., Seventh Oregon Climate Assessment 242 (2025), <https://doi.org/10.5399/osu/1181> [hereinafter Seventh Assessment].

<sup>59</sup> *Id.* at 255.

<sup>60</sup> Or. Health Auth., Climate and Health in Oregon: 2023 Report 31–32, [https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/CLIMATECHANGE/Documents/FINAL%20Climate%20Health%20in%20Oregon%202023%20v071124%20\(1\).pdf](https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/CLIMATECHANGE/Documents/FINAL%20Climate%20Health%20in%20Oregon%202023%20v071124%20(1).pdf) [hereinafter OHA 2023 Report].

<sup>61</sup> Rachel H. White et al., *The Unprecedented Pacific Northwest Heatwave of June 2021*, 14 *Nature Comms.* 727 (2023), <https://doi.org/10.1038/s41467-023-36289-3>.

<sup>62</sup> Seventh Assessment, *supra* note 58, at 223.

<sup>63</sup> *Id.*

<sup>64</sup> OHA 2023 Report, *supra* note 60, at 12.

<sup>65</sup> *Id.* at 26.

<sup>66</sup> *Id.* at 44.

<sup>67</sup> *Id.*

geographic range of disease-carrying insects such as ticks,” creating opportunities for disease to emerge and spread, including Lyme Disease and West Nile Virus.<sup>68</sup> Similarly, the Seventh Assessment notes that “[i]nfectious diseases in Oregon’s wild and domestic animals continue to evolve as climate changes,” and that there is “every reason to believe such diseases will significantly impact” human health.<sup>69</sup>

## 6. Rhode Island

Climate change is impacting Rhode Island in multiple ways, causing rises in average temperatures, sea levels, precipitation rates, and the frequency of coastal flooding events.

Rhode Island’s temperatures have risen by 4°F in the past century, with the state experiencing both the highest numbers of above-average days and above-average nights between 2015 and 2020. The state has also experienced a below-average number of very cold nights since the 1980s.<sup>70</sup> Hotter days pose a particular risk in Rhode Island, a highly urbanized and densely populated state.<sup>71</sup> Rhode Island’s capital, Providence, is highly vulnerable to heat and has seen a major increase in extreme heat events since the 1980s.<sup>72</sup>

Precipitation rates have also increased in Rhode Island. Since the 2000s, Rhode Island has experienced a significant increase in annual precipitation and a greater number of extreme precipitation events, leading to more frequent flooding.<sup>73</sup> In fact, five of the top ten wettest years in Rhode Island have occurred since 2000, with 2023 recording 57.66” of precipitation, the sixth highest amount since 1904.<sup>74</sup> This increased precipitation is projected to continue in the coming years, especially in the winter and spring seasons, which bring severe storms.<sup>75</sup> The Ocean State’s coastlines are highly susceptible to flooding from winter weather events and hurricanes. In August 2021, Tropical Storm Henri made landfall in Westerly, Rhode Island, dumping up to 8 inches of rain in the area and causing power outages for

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<sup>68</sup> *Id.* at 45.

<sup>69</sup> Seventh Assessment, *supra* note 58, at 8, 238.

<sup>70</sup> Jennifer Runkle & Kenneth E. Kunkel, Nat’l Ctrs. for Env’t Info., State Climate Summaries 2022: Rhode Island (2022), <https://statesummaries.ncics.org/downloads/RhodeIsland-StateClimateSummary2022.pdf>.

<sup>71</sup> Fabian Wagner et al., *Assessment of Urban Water-Energy Interactions and Heat Island Signatures in Rhode Island*, 7 Energy Nexus 100093 (2022), <https://doi.org/10.1016/j.nexus.2022.100093>.

<sup>72</sup> *Id.*; *Extreme Heat*, Brown Univ.: Sustainability & Resilience, <https://sustainability.brown.edu/resiliency/extreme-heat> (last visited Sept 29, 2025).

<sup>73</sup> Ellen L. Mccray et al., U.S. Glob. Change Rsch. Program, Ch. 21: Northeast in Fifth National Climate Assessment, <https://repository.library.noaa.gov/view/noaa/61592>.

<sup>74</sup> *Id.*

<sup>75</sup> Runkle & Kunkel, *supra* note 70.

over 100,000 residents.<sup>76</sup> In response, FEMA issued a disaster declaration, and since 2021, FEMA has declared four additional storm-related disasters in Rhode Island.<sup>77</sup>

The state's predisposition to flooding means that Rhode Island is also disproportionately impacted by rising sea levels. The average sea level in Newport has risen by about 0.12 inches (2.97 mm) each year since 1930—nearly an increase of one foot in a century.<sup>78</sup> These sea level changes are expected to bring about both large increases in tidal flood events and smaller local flooding events.<sup>79</sup> The current sea level rise has already impacted Rhode Island, as the number of tidal flood days has increased overall, with the highest number of days occurring in 2017.<sup>80</sup> As sea levels continue to rise, New England is expected to face severe impacts. The National Flood Insurance Program (NFIP) expects an increase in expected annual flood damage to rise by 38% to 52% by 2100.<sup>81</sup> By that year, the NFIP predicts that sea levels will rise by 1 to 4 feet.<sup>82</sup>

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<sup>76</sup> Lara Skinner et al., Building a Just Transition for a Resilient Future: A Climate Jobs Program for Rhode Island, Cornell Univ.: ILR Worker Inst. (2022), <https://www.cjnrc.org/wp-content/uploads/2022/02/Rhode-Island-Report-Final-2.3-Compressed.pdf>.

<sup>77</sup> See *OpenFEMA Dataset: Disaster Declarations Summaries–v2*, Fed. Emergency Mgmt. Agency, <https://www.fema.gov/openfema-data-page/disaster-declarations-summaries-v2> (last updated Sept. 29, 2025).

<sup>78</sup> *Relative Sea Level Trend: 8452660 Newport, Rhode Island*, NOAA: Tides & Currents, [https://tidesandcurrents.noaa.gov/sltrends/sltrends\\_station.shtml?id=8452660#tabmeantrend](https://tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtml?id=8452660#tabmeantrend) (last visited Sept. 29, 2025).

<sup>79</sup> Runkle & Kunkel, *supra* note 70.

<sup>80</sup> *Id.*

<sup>81</sup> *Id.*

<sup>82</sup> *Id.*