ORAL ARGUMENT NOT YET SCHEDULED

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 19-1230 (and consolidated cases)

UNION OF CONCERNED SCIENTISTS, *et al.*,
Petitioners,

v.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, *et al.*,
Respondents.

On Petition for Review of Final Action of the
National Highway Traffic Safety Administration
84 Fed. Reg. 51,310 (September 27, 2019)

BRIEF OF NATIONAL PARKS CONSERVATION ASSOCIATION AND COALITION TO PROTECT AMERICA'S NATIONAL PARKS AS AMICI CURIAE IN SUPPORT OF STATE AND LOCAL GOVERNMENT AND PUBLIC INTEREST PETITIONERS

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CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

All parties, intervenors, and other *amici* appearing in this case are listed in the brief for petitioners State of California, et al.

References to the rulings under review and related cases also appear in the brief for petitioners.

STATEMENT REGARDING SEPARATE BRIEFING, AUTHORSHIP, AND MONETARY CONTRIBUTIONS

Under D.C. Circuit Rule 29(d), *amici* National Parks Conservation Association and Coalition to Protect America's National Parks state that they are aware of other planned *amicus* briefs in support of State and Local Government and Public Interest Petitioners in this case. Separate briefing is necessary because none of the other *amicus* briefs will address the unique perspective of *amici* as leading national organizations that represent the interests of those who serve, enjoy, and seek to preserve America's National Park System—and the interests of the protected resources in their own right—in light of the distinct damage and singular threats that Parks face due to climate change and air quality degradation. *See* Fed. R. App. P. 29(a)(5).

Under Federal Rule of Appellate Procedure 29(a)(4)(E), *amici* state that no party's counsel authored this brief in whole or in part, and no party or its counsel made a monetary contribution intended to fund the preparation or submission of this brief. No person other than *amici curiae* or their counsel contributed money that was intended to fund preparation or submission of the brief.[1]

[1] Counsel Theodore E. Lamm and Sean B. Hecht provide their institutional affiliations solely for purposes of identification and do not imply any institutional endorsement of the views expressed here.

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GLOSSARY

"Act"	Clean Air Act
"EPA" or "Agency"	United States Environmental Protection Agency
"NPCA"	National Parks Conservation Association
"Parks"	America's National Park System and the National Parks therein
"Zero-Emission Vehicle and Greenhouse Gas Regulations"	California's Advanced Clean Cars Program, 13 Cal. Code Regs. §§ 1961-1962

INTEREST OF AMICI CURIAE

Amicus National Parks Conservation Association ("NPCA") is a non-partisan, non-profit organization whose mission is to provide an independent voice for protecting and enhancing America's National Park System ("Parks") for present and future generations. NPCA and its 1.3 million members and supporters use, enjoy, and work to conserve Parks, including the 18 National Parks and hundreds of other Park units located in California and the 13 other states that have adopted California's Zero-Emission Vehicle and/or Greenhouse Gas Regulations pursuant to Section 177 of the Clean Air Act ("Section 177 States").[2] As a leading advocate on behalf of Parks for over 100 years, NPCA is actively engaged in protecting the ecosystems, species, and other unique values of Parks, including through participating in litigation enforcing the Clean Air Act to reduce harmful air pollution in Parks.

Amicus Coalition to Protect America's National Parks is a non-partisan, non-profit organization comprising over 1,800 current and former employees and volunteers of the Parks. These include former National Park Service directors,

[2] The Section 177 States are Colorado, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington. These 13 states plus California represent approximately one third of new light-duty vehicle sales in the U.S. California Air Resources Board, "States that have Adopted California's Vehicle Standards under Section 177 of the Federal Clean Air Act," available at https://ww2.arb.ca.gov/sites/default/files/2019-03/177-states.pdf.

superintendents, park rangers, and other professionals who collectively represent over 40,000 service years devoted to the Parks, including Parks in California and the Section 177 States. Since 2003, the Coalition has led a range of actions to protect Parks in furtherance of their statutory purpose and to perpetuate their time-honored values for the benefit of all generations, including preserving Parks' specially protected status under the Clean Air Act.

Amici, as leading national groups representing Parks employees, policy and scientific experts, advocates, and community organizers all committed to protecting Parks, have a strong interest in the outcome of this litigation. Specifically, *amici* have a singular interest in fighting the current and future impacts of climate change and air quality degradation in Parks and their neighboring communities, and in preserving legal measures that advance that effort. This includes California's long-established Clean Air Act waiver authorizing it to implement its Zero-Emission Vehicle and Greenhouse Gas Regulations, which EPA has erroneously attempted to withdraw in the action challenged in this case. *Amici* submit this brief in support of State and Local Government and Public Interest Petitioners and in support of clean air regulation that adequately protects the indispensable natural treasures that Parks provide to the nation.

INTRODUCTION AND SUMMARY OF ARGUMENT

The National Park System is home to iconic landscapes, species, and landmarks representing the full breadth of America's natural and cultural heritage. Parks, and their administration by the National Park Service, are widely viewed as the pinnacle of American environmental conservation. These diverse places include the snow-capped peaks of the Sierra Nevada, the deserts of Joshua Tree, and the coastline of the Golden Gate. They support billions of dollars in annual revenue and tens of thousands of local jobs. Yet these dynamic and invaluable national assets are especially vulnerable to climate change and air pollution. In California, Parks are experiencing devastating impacts due to emissions of greenhouse gases, ozone, and particulate matter, including record-setting wildfires, irretrievable loss of iconic species, irreversible depletion of snowpack, and severe air quality and visibility impairment, together with associated human health and economic harms. These impacts will only get worse without decisive action to reduce harmful air pollution.

This case concerns EPA's Safer Affordable Fuel-Efficient Vehicles Rule Part One ("Waiver Withdrawal"), 84 Fed. Reg. 51,310, which attempts to withdraw the 2013 waiver EPA granted to California permitting the state to issue its own motor vehicle emission standards under the Clean Air Act ("Act"). *See* 78 Fed. Reg. 2,112; 42 U.S.C. § 7543(b). California's standards, adopted by 13 other

states, are "critical" in its efforts to meet federal air quality standards in vulnerable areas and "integral" to its efforts to combat climate change. ACC Midterm Review at ES-10. As Parks amply demonstrate, California does and will continue to experience compelling and extraordinary conditions related to greenhouse gases and other air pollutants without effective motor vehicle emission limitations. By disregarding these impacts, the Waiver Withdrawal derogates from the principles and values of Parks and fails to satisfy the core requirements of the Act.

ARGUMENT

I. NATIONAL PARKS NEED AIR QUALITY AND CLIMATE PROTECTION AS REQUIRED BY LAW

A. Parks are Beacons of Environmental Preservation

Since the establishment of Yellowstone National Park in 1872, Parks have stood at the forefront of American conservation and preservation efforts. Parks include "superlative natural, historic, and recreation areas in every major region of the United States" that cumulatively express "a single national heritage" and "derive increased national dignity and recognition of their superb environmental quality" through their preservation and management for the benefit of all Americans. 54 U.S.C. § 100101(b)(1). For over a century, the "fundamental purpose" of Parks has been to "conserve [their] scenery, natural and historic objects, and wild life" and "leave them unimpaired for the enjoyment of future generations." P.L. 64-235, § 1; 54 U.S.C. § 100101(a). Federal courts have long recognized the primacy of this preservation goal. *See Michigan United Conservation Clubs v. Lujan*, 949 F.2d 202, 206-207 (6th Cir. 1991). Today, Parks encompass over 400 individual units, including 62 National Parks, attracting hundreds of millions of visitors annually and garnering international renown for their environmental quality and their value to the nation as a whole.

California is home to 9 National Parks—the most of any state—and 25 other Park units of the National Park System; the Section 177 States host an additional 9

National Parks and over 180 Park units.[3] These Park units include some of the most diverse and iconic ecosystems in the nation, from the temperate rain forests of Olympic National Park to the massive giant sequoias of Sequoia National Park to the salt flats of Death Valley National Park. They are home to unique species like the Channel Islands island fox, the Sierra Nevada bighorn sheep, and the Joshua tree. They conserve water resources essential to millions of residents and local economies, providing drinking water to San Francisco and hydropower to western Washington. And they hosted over 109 million visitors in 2018, supporting over 86,000 jobs and contributing to over $9 billion in economic output. 2018 National Park Spending at 49-51.

B. The Vitality of Parks Depends on Rigorous Environmental Protection

Parks are also inextricably linked to the nation's landmark environmental protection laws, including the Endangered Species Act, 35 U.S.C. §§ 1531 et seq., which protects species living in Parks like the Sierra Nevada bighorn sheep; the Clean Water Act, 33 U.S.C. §§ 1251 et seq., which protects national waters originating in Parks such as the Colorado River; and, centrally, the Clean Air Act, 42 U.S.C. §§ 7401 et seq., which confers special air quality protection status on Parks.

[3] The National Parks in California are Channel Islands, Death Valley, Joshua Tree, Kings Canyon, Lassen Volcanic, Pinnacles, Redwood, Sequoia, and Yosemite.

When Congress amended the Act in 1977 to address air pollution problems that threaten public health and welfare despite attainment of National Ambient Air Quality Standards, it sought to "preserve, protect, and enhance the air quality in national parks." 42 U.S.C. § 7470(2). The Prevention of Significant Deterioration program designates all National Parks as Class I or Class II areas requiring enhanced air quality protection; directs states to include stringent emission limitations to protect these areas in their State Implementation Plans; and imposes strict permitting requirements on new facilities projected to affect these areas. 42 U.S.C. §§ 7471-7475. The House committee responsible for the legislation stated that "it was not the intent of Congress to pass legislation preserving [Parks] and other unique national treasures and then to permit the air quality to deteriorate." H.R. Rept. 95-294 at 148.

Congress also declared a "national goal" of remedying impaired visibility due to human-caused air pollution in many Class I areas, and directed states to steadily reduce emissions until that goal is met. 42 U.S.C. §§ 7491(a)(1), 7491(b)(2). Among these areas are 16 National Parks in California and Section 177 States. 40 C.F.R. §§ 81.400 et seq. The House drafters stated that "protection of clean air quality [in National Parks] is obviously a critical national concern" and "the economic life blood of many areas may be seriously threatened" by failure to adequately preserve visibility. H.R. Rept. 95-294 at 137-138. This singular

treatment under the Act reflects the special ecological, cultural, and economic value of National Parks.

C. California's Zero-Emission Vehicle and Greenhouse Gas Regulations Protect Parks

The Act's motor vehicle program complements these stringent requirements for emissions from stationary sources by offering states the ability to implement enhanced measures to reduce mobile-source pollution. The Act's national motor vehicle provisions generally preempt state emissions standards, but since 1967 Congress has authorized, in appropriate circumstances, adoption of stricter state standards. California may set its own standards to meet the state's severe air pollution challenges, so long as they are at least as protective of public health and welfare as federal standards, they are needed "to meet compelling and extraordinary conditions," and the state's determination was not arbitrary and capricious. P.L. 90-148, § 208(b); 42 U.S.C. § 7543(b). Congress also recognized that California's standards could improve air quality in other states throughout the country: in 1977, Congress amended the Act to allow other states (often referred to as "Section 177 States") to adopt California's standards. P.L. 95-95, § 129(b); 42 U.S.C. § 7507. These enhanced standards are especially beneficial to Parks, given the particular sensitivity to air pollution of their iconic natural resources.

In 2012, California adopted its Advanced Clean Cars Program, which included two distinct but related standards to address distinct but related air

pollution problems from new vehicles: updated zero-emission vehicle manufacturing requirements, which California first instituted in the 1990s to reduce emissions of nitrogen oxides, particulate matter, and other air pollutants ("Zero-Emission Vehicle Regulations"); and greenhouse gas emission standards, which California began crafting in 2002 to reduce emissions of climate change-inducing carbon dioxide ("Greenhouse Gas Regulations" and, collectively together with the Zero-Emission Vehicle Regulations, the "Zero-Emission Vehicle and Greenhouse Gas Regulations"). 13 Cal. Code Regs. §§ 1961.3, 1962.2; *see* Cal. Health & Safety Code §§ 43018, 43018.5. In 2013, EPA granted California a waiver for the Zero-Emission Vehicle and Greenhouse Gas Regulations under Section 209(b) of the Act. 78 Fed. Reg. 2,112. EPA stated that California "still faces" the "underlying geographical and climatic conditions" that satisfy Section 209(b)'s "compelling and extraordinary conditions" requirement for a separate vehicle emissions program, of which both the Zero-Emission Vehicle and Greenhouse Gas Regulations are core elements. *Id.* at 2,128-2,131.

EPA also acknowledged that while the appropriate analysis of "compelling and extraordinary conditions" is programmatic, not regulation- or condition-specific, California faces such conditions "directly related to" greenhouse gas emissions, including "[r]ecord-setting fires, deadly heat waves, destructive storm surges, [and] loss of winter snowpack." *Id.* at 2,129 (internal quotation marks

omitted). These conditions pose a particular risk for iconic Park ecosystems; just months after EPA granted the 2013 waiver, the Rim Fire burned over 77,000 acres of Yosemite National Park, damaging "water quality," "wilderness values," and "cultural resources." Rim Fire Response Plan at 4-5.

EPA simultaneously noted the role of both the Zero-Emission Vehicle and Greenhouse Gas Regulations in controlling other air pollutants such as particulate matter and ozone, which contribute to "some of the worst air quality in the nation" in California's San Joaquin Valley. 78 Fed. Reg. at 2,128-2,130. Climate change can exacerbate the impacts of these pollutants and even directly increase their concentrations in ambient air. Fourth Assessment at 40. These pollutants pose risks including threatening visitor health and visibility in Death Valley, Kings Canyon, Sequoia, and Yosemite National Parks. They also harm the health of millions of residents in neighboring communities who are among California's most environmentally and socioeconomically vulnerable.

It is against this backdrop that EPA issued the Waiver Withdrawal. The Waiver Withdrawal improperly attempts to eliminate California's waiver under Section 209(b), seeking to negate essential climate and air quality protections and unwind over five decades of leadership by California and the Section 177 States. The threats facing Parks vividly demonstrate both the compelling and extraordinary conditions in California that justify the Zero-Emission Vehicle and

Greenhouse Gas Regulations and the misguided nature of EPA's Waiver Withdrawal.

II. NATIONAL PARKS IN CALIFORNIA PROVIDE IRREFUTABLE EVIDENCE OF COMPELLING AND EXTRAORDINARY CLIMATE CHANGE AND AIR POLLUTION CONDITIONS

A. Climate Change and Air Pollution Harm and Threaten California Parks

Climate change is devastating California ecosystems and infrastructure, from increasing droughts and more extensive wildfires to declining snowpack and extreme sea level rise. These harms are projected to escalate. Endangerment Technical Document at 68-88; Fourth Assessment at 22. The widely varied ecosystems and resources of California Parks are particularly vulnerable to climate change, from coastal inundation at Golden Gate National Recreation Area and sea temperature increases at Channel Islands National Park to upslope migration of habitats and tree mortality increases at Yosemite and Sequoia National Parks. *See* Climate Change Trends at 107-108. These impacts are already manifesting—California and California Parks suffered record drought from 2011 to 2014 and record wildfire seasons in 2017 and 2018—and will only intensify in the future without aggressive action.

EPA has found that climate change will interact with and exacerbate other air pollution problems, worsening concentrations of ozone and particulate matter directly and through increased wildfires. Endangerment Technical Document at

89-95. Impacts of this harmful interaction include asthma, heart attacks, and increased mortality, as well as reduced crop yields and forest growth. *Id*. at 92-96. These impacts are felt acutely in California Parks—which include four of the most polluted Park units in the nation—and the neighboring communities that they support. Polluted Parks at 10; *see* Air Pollution and Visitation at 1. As the following examples demonstrate, the present and projected harms from climate change and air pollution at California Parks are irrefutable evidence of California's compelling and extraordinary conditions.

1. Air pollution and climate change harm and threaten human health at California Parks

Up to 77 million Park visitor-days since 1990 have occurred on days when ozone concentrations exceeded the standard that the National Park Service, based on EPA analysis, classifies as "significant concern." Air Pollution and Visitation at 4; Air Quality Analysis Methods at 7. *Amicus* NPCA has found that four California Parks (Kings Canyon, Joshua Tree, and Sequoia National Parks and Mojave National Preserve) had unhealthy air for most park visitors and staff for most of the peak summer visitation months. Polluted Parks at 10, 14. The National Park Service has noted that parts of Sequoia and Kings Canyon "experience some of the worst air quality in the National Park System." Sierra Parks Air Quality at viii. In Sequoia, ozone air pollution levels are worse than those in Los Angeles—which is home to the worst urban ozone pollution in the nation—with more days in the Park

deemed "unhealthy for sensitive groups" since the mid-1990s than in the city. Air Pollution and Visitation at 1; Polluted Parks at 14. As *amicus* NPCA has documented, this pollution can cause asthma, throat irritation, and lung irritation—and it is caused largely by emissions from California's San Joaquin Valley, which EPA has recognized as a prime example of the state's compelling and extraordinary air pollution problem. Polluted Parks at 10; 78 Fed. Reg. at 2,129-2,130; *see* Sierra Parks Air Quality at 4. As NPCA and EPA have documented, these pollutants harm not only Parks visitors and staff but also many vulnerable residents of neighboring communities in the San Joaquin Valley. Polluted Parks at 14-15; 78 Fed. Reg. at 2,129. And as climate change accelerates, these impacts will only worsen.

2. Climate change and air pollution harm and threaten species, habitats, and ecosystems at California Parks

Climate change is driving increases in tree mortality, habitat disruption, and loss of water resources that will permanently impact the survival of key species and ecosystems. California Parks are already acutely experiencing these impacts: parts of California Parks including Kings Canyon, Lassen Volcanic, and Yosemite National Parks experienced a 100 percent increase in old-growth tree mortality over the second half of the 20th Century, and climate change has caused tree species at Yosemite to migrate upslope and bird species at Santa Monica Mountains National Recreation Area to shift northward. Climate Change Trends at

110-111. Over 100 million trees in the Sierra Nevada have died since 2010 due to drought conditions and bark beetle outbreaks, both of which are exacerbated by climate change. Sierra Tree Mortality at 165. Climate change-driven drought is also having a significant impact on giant sequoia populations in Sequoia and Kings Canyon National Parks, reducing essential moisture levels at an unprecedented rate. Stress of Giant Sequoia Groves at 12. This extreme increase in mortality, surpassing 90 percent in some parts of the Sierra Nevada, in turn creates an excessive amount of dry fuel for major wildfires like those that have devastated the Sierra in recent years. Tree Mortality and Wildfire at 85-86; Sierra Tree Mortality at 165.

The future impacts to California Parks are even grimmer. Iconic species—including elephant seals at Point Reyes National Seashore, desert tortoise at Joshua Tree National Park, desert bighorn sheep in Mojave National Preserve, and American pika in Lassen Volcanic, Sequoia, and Yosemite National Parks—face severe habitat shifts or destruction due to climate change. Climate Change Trends at 118-125. A 2-degree Celsius increase in temperatures, which is the generally accepted target for avoiding the most severe impacts of climate change, could reduce the habitat range of Joshua Tree National Park's namesake by 66 to 78 percent. Impacts on Joshua Trees at 33. By some estimates, climate change will eventually leave the Joshua tree with no habitat within Joshua Tree National Park.

Climate Change Trends at 119. These losses could be irreversible, permanently robbing California of some of its most prized species and ecosystems.

Moreover, non-greenhouse gas air pollution exacerbates these threats. *Amicus* NPCA has identified 368 Park units currently suffering harm to sensitive species and habitat due to air pollution, and 283 at which the problem is a "significant concern" based on National Park Service data and EPA criteria, with California Parks among the worst impacted. Polluted Parks at 11. Ozone pollution stifles tree and plant growth and nitrogen oxide and sulfur dioxide alter soil and water chemistry, affecting both plant and animal survival. According to the National Park Service, vegetation at Sequoia and Kings Canyon National Parks has exhibited "more documented impacts [from ozone pollution] than at any other western national park," including harm to native pines and giant sequoias. Sierra Parks Air Quality at viii. Kings Canyon, Sequoia, and Yosemite National Parks are all considered "very high" risk of harmful acidification and nitrogen enrichment of soil and water, to which vehicle-produced air pollution contributes. *Id.* at 15, 31. The interrelated nature of these threats at California Parks highlights the compelling and extraordinary conditions facing the state.

3. Climate change poses severe wildfire risks at California Parks

Climate change and the tree mortality it causes are increasing the frequency and severity of wildfire events, severely threatening resources in California Parks

and presenting neighboring communities in the Sierra Nevada foothills with an annual threat of destruction. Nine of the 10 largest wildfires in California history have occurred in the past 20 years, with significant damage to Parks.[4] The 2018 Ferguson Fire destroyed nearly 100,000 acres in and around Yosemite, forcing closure of the iconic Yosemite Valley and Mariposa Grove of Giant Sequoias for weeks. The effects of climate change likely more than doubled the total burned area in western US forests between 2000 and 2015, a trend that is expected to continue in the near future. Impact of Climate Change on Wildfire at 11,772-11,773. Climate change-exacerbated fires will exact a substantial toll on California Parks, including forced closures, reduced visibility, lost visitation, and damaged or destroyed ecosystems and habitats.

4. Climate change and air pollution threaten visibility at California Parks

Despite the stringent visibility protections Congress included in the Clean Air Act, based on National Park Service data and EPA criteria, *amicus* NPCA has found that 89 percent of Parks experience visibility impairment above natural conditions of "moderate" or "significant concern," costing visitors an average of 50 miles of visibility. Air Quality Analysis Methods at 10, 47-56; Polluted Parks at 12. According to the National Park Service, at Sequoia and Kings Canyon National

[4] Wildfire data obtained from California Department of Forestry and Fire Protection, "Top 20 Largest California Wildfires," available at https://www.fire.ca.gov/media/5510/top20_acres.pdf.

Parks, air pollution has reduced visibility from 150 to 35 miles, while at Yosemite National Park visibility can be reduced as low as 7 miles on the haziest days. Sierra Parks Air Quality at 47. At Death Valley National Park, air pollution has reduced average visibility from 150 to 80 miles; on the haziest days, visibility can be as low as 19 miles in Death Valley and 13 miles in Joshua Tree National Park. Mojave Parks Air Quality at 25. These visibility conditions are largely due to the scale and proximity of air pollution from sources including motor vehicles on major highways in the neighboring San Joaquin Valley and South Coast air basins, and they extend across Parks and neighboring communities. *Id*. at 32; Sierra Parks Air Quality at vii, 55; Polluted Parks at 12, 14. As noted above, EPA has recognized pollution in these regions as central to California's compelling and extraordinary air pollution problem.

5. Climate change threatens water resources at California Parks

Climate change poses equally dire risks for snowpack and water supplies originating in California Parks. California's Sierra Nevada mountains cover much of King's Canyon, Sequoia, and Yosemite National Parks and provide approximately 60 percent of the state's developed water supply via snowpack. State of the Sierra Nevada at 8. Human-caused temperature increases and climate change-exacerbated drought have already reduced this snowpack by 25 percent between 2012 and 2015, an amount equivalent to approximately double San

Francisco's annual residential water needs. Warming Impacts on California Snowpack at 2514-2515. Snowpack could diminish by 50 to 85 percent by 2100 if greenhouse gas emissions do not decline. *Id.*; Fourth Assessment at 26. This diminishment will place significant strain on California's water supplies, which the state's infrastructure will struggle to withstand. Fourth Assessment at 56-57. It does and will continue to disrupt ecosystems and species that rely on consistent snowpack for their water supply, such as the iconic giant sequoias of Sequoia and Yosemite National Parks.

6. Climate change threatens coastal resources at California Parks

Climate change also poses a dire and costly threat to California Parks through sea-level rise. A National Park Service study of 40 coastal Park units designated over $40 billion of Parks assets as "high exposure" to 1 meter of sea-level rise, which is expected in the next 100 to 150 years due to climate change. Climate Change in Coastal Parks at 14. These threats will cost over $600 million at Golden Gate National Recreation Area, over $262 million at San Francisco Maritime National Historical Park, over $190 million at Fort Point National Historic Site, over $40 million at Channel Islands National Park, over $34 million at Point Reyes National Seashore, and over $7 million at Redwood National Park. *Id*. at 149-174. As climate change progresses, sea level rise will increasingly threaten these California Parks' historical and cultural resources, essential

infrastructure, and iconic natural features. *Id.* at 1. Neighboring coastal communities similarly face risk of inundation and destruction. In many cases, this damage will be irreparable.

B. Climate Change and Air Pollution Pose Economic Threats to California Parks and Their Communities

Climate change and air quality impacts also have a related and negative impact on the substantial economic benefits California Parks provide. In 2018, California Parks hosted nearly 40 million visitors and supported over $4.2 billion in economic output. But a 2018 study of 33 National Parks, including 8 in California, found that each increase of 1 part per billion in ozone concentration (which harms human health and visibility) is associated with a 2 percent decrease in monthly visitation during peak summer periods. Air Pollution and Visitation at 2. Ozone levels in Parks were indistinguishable from those in major metropolitan areas, and exceeded the 70 parts per billion "unhealthy for sensitive groups" threshold on approximately 9 percent of Park visitor days. *Id.* at 4. These findings suggest millions of dollars in economic losses from lost visitation due to air pollution, harming California Parks and their host communities. As EPA noted in its 2013 waiver, ozone is a key element of the compelling and extraordinary air pollution problem which California developed the Zero-Emission Vehicle and Greenhouse Gas Regulations to address. 78 Fed. Reg. at 2,129-2,130.

In addition, as noted above, climate change poses an irreversible threat to snowpack in California Parks, with devastating impacts to water supplies in neighboring communities and agricultural lands. Snowpack in the Sierra Nevada, which is already consistently shrinking, could diminish by 85 percent this century without significant greenhouse gas emission reduction. Warming Impacts on California Snowpack at 2514-2515. The Sierra Nevada provides 75 percent of the total water available to the Sacramento-San Joaquin Delta, a National Heritage Area and one of the most productive farming regions in the nation's top agricultural state. State of the Sierra Nevada at 8. Flows originating in the Sierra Nevada feed seven of the top ten agricultural counties in California, supporting tens of billions of dollars in economic activity, hundreds of thousands of jobs, and the nation's food supply. Agricultural Statistics Review at 5. Continued climate change-induced diminishment of snowpack in Parks such as Kings Canyon, Sequoia, and Yosemite and throughout the Sierra Nevada will have a disastrous impact on this crucial resource and on productivity throughout the state.

III. THE ZERO-EMISSION VEHICLE AND GREENHOUSE GAS REGULATIONS ARE BOTH NECESSARY TO PROTECT PARKS IN CALIFORNIA AND SECTION 177 STATES FROM CLIMATE CHANGE AND AIR QUALITY HARMS

As basis for its attempted elimination of the Zero-Emission Vehicle and Greenhouse Gas Regulations, EPA claims in the Waiver Withdrawal that "GHG emissions from California cars are no more relevant" to California's climate

change problem than are emissions from cars outside the state; and that "the health and welfare effects of climate change impacts on California are not extraordinary to that state and to its particular characteristics." 84 Fed. Reg. at 51,339. EPA's position is mistaken. The climate change- and air pollution-related harms to Parks in California described above are direct evidence of compelling and extraordinary conditions supporting implementation of both the Zero-Emission Vehicle and Greenhouse Gas Regulations.

A. The Zero-Emission Vehicle and Greenhouse Gas Regulations Address Air Pollution Problems that Harm California Parks and Their Communities

As EPA has explained, California faces particular "geographic and climatic conditions" that cause parts of the state, including the San Joaquin Valley, "to experience some of the worst air quality in the nation" including non-attainment of National Ambient Air Quality Standards for particulate matter and ozone. 78 Fed. Reg. at 2,130. The San Joaquin Valley, the most productive agricultural region in the nation and home to millions of Californians, borders the foothills of Kings Canyon, Sequoia, and Yosemite National Parks. These Parks experience consistently degraded air quality, harming visibility, visitor and employee health, and sensitive species. *Supra* at 20-25. As *amicus* NPCA has documented, protection of air quality in these Parks is intimately linked to protection of visibility and human health in the Valley's environmentally and socioeconomically

vulnerable agricultural communities. Polluted Parks at 10, 14-15. The Zero-Emission Vehicle and Greenhouse Gas Regulations are both crucial to this effort.

Meeting federal air quality standards has proven a particular challenge in the San Joaquin Valley for decades. The region's air quality district, which includes large portions of Kings Canyon, Sequoia, and Yosemite National Parks, is designated as nonattainment for the 1997 PM2.5 National Ambient Air Quality Standard and extreme nonattainment for the 2008 ozone standard. 70 Fed. Reg. at 956; 75 Fed. Reg. at 24,409. Vehicle emissions are a key driver of these pollution problems, contributing to the area's nonattainment and to climate change. California noted in its 2016 strategy for carrying out its State Implementation Plan that "[m]obile sources…and the fossil fuels that power them are the largest contributors to the formation of ozone, PM2.5, diesel particulate matter, and greenhouse gas emissions in California. The significant contribution of mobile sources…demonstrat[es] the need for a comprehensive transformation to cleaner vehicle technologies, fuels, and energy sources." SIP Strategy at 1-2. As a result of this need, California crafted both the Zero-Emission Vehicle and Greenhouse Gas Regulations as "critical" components of "the [State Implementation Plan] for achieving national ambient air quality standards in the South Coast and San Joaquin Valley." ACC Midterm Review at ES-10.

As EPA has recognized, the two regulations interact in a manner that is particularly important for controlling air pollution in California's most vulnerable communities. In its 2009 waiver for California's prior greenhouse gas regulations, the Agency stated that "the impacts of global climate change can…exacerbate" local ozone air pollution problems and "greenhouse gas standards are linked to amelioration of California's smog problem." 74 Fed. Reg. at 32,763. EPA concluded: "There is a logical link between the local air pollution problem of ozone and California's desire to reduce GHGs as one way to address the adverse impact that climate change may have on local ozone conditions." *Id*. The San Joaquin Valley, including communities that neighbor Sequoia and Kings Canyon National Parks, "experience[s] some of the worst air quality in the nation." 78 Fed. Reg. at 2,128. Nearly all of these communities are among the state's most vulnerable to environmental pollutants, according to the California Environmental Protection Agency's environmental health assessment tool that incorporates pollution levels (including particulate matter and ozone) and health and socioeconomic indicators (such as income, education, and cardiovascular disease levels). CalEnviroScreen at 152. The Zero-Emission Vehicle and Greenhouse Gas Regulations are thus key components of California's efforts to address this pressing environmental justice problem.

As a result, California formally adopted (and EPA approved) the Zero-Emission Vehicle Regulations as a component of California's State Implementation Plan to attain National Ambient Air Quality Standards for criteria pollutants. 81 Fed. Reg. 39,424. The Agency acknowledged that the regulations "support the various reasonable further progress, attainment, and maintenance plans developed by California to meet [State Implementation Plan] requirements." 83 Fed. Reg. 23,233. Other Section 177 States have also included one or both of the Zero-Emission Vehicle and Greenhouse Gas Regulations in their implementation plans for similar reasons. *See, e.g.*, 77 Fed. Reg. 3,386 (Pennsylvania); 80 Fed. Reg. 40,920 (Maryland). By attempting to eliminate the Zero-Emission Vehicle and Greenhouse Gas Regulations, EPA's Waiver Withdrawal thus hinders the ability of California and other Section 177 States to achieve their legally mandated clean air targets, distinct from but intimately related to their ability to address a greenhouse gas emissions problem of "unusual importance." *Massachusetts v. EPA*, 549 U.S. 497, 506 (2007).

B. Threats to California Parks Due to Climate Change and Air Pollution Support the Conclusion that California's Conditions Are Compelling and Extraordinary

While Parks in California are already affected by climate change, the future threats are even more dire. Greenhouse gases and other pollutants pose devastating risks to California Parks' "superlative natural, historic, and recreation areas," 54

U.S.C. § 100101(b)(1), through irreversible degradation of ecosystem and water resources, destruction of coastal assets, and severe wildfires. At the same time, California Parks experience related harm from air pollutants like ozone and particulate matter that interact with and are exacerbated by climate change, including damage to soil and water chemistry and decreased visibility, which will further harm key ecosystems and reduce visitation and revenue.

As EPA has noted, the term "compelling and extraordinary" refers to "geographical and climatic conditions" that "create serious air pollution problems," and in California these conditions are linked to risks—including ozone and particulate matter pollution contributing to "some of the worst air quality in the nation" and "record-setting fires, deadly heat waves, destructive storm surges, loss of winter snowpack"—that support satisfaction of the waiver issuance requirements of Section 209(b). 78 Fed. Reg. at 2,129 (internal quotation marks omitted). EPA's present assertion that "conditions that are similar on a global scale are not 'extraordinary,'" 84 Fed. Reg. at 51,342, is made on the inaccurate premise that California suffers from climate change threats in a manner undifferentiated from the rest of the world, while ignoring the extent to which California's air quality problems are interlinked with the state's greenhouse gas emissions.[5] The

[5] EPA's assertion also ignores how greenhouse gas emissions directly cause local environmental harms. Coastal waters near urban areas can receive up to 20 percent more atmospheric carbon dioxide, which has destructive acidification impacts on

state's particular geography, climate, and air pollution problems—including but not limited to the air pollution dynamics of the San Joaquin Valley air basin—contribute directly to severe climate- and air quality-related risks facing these Parks, which reverberate throughout the state's environment, communities, and economy.

In addition, this court has acknowledged that when Congress based Section 209(b) waiver decisions on the existence of "compelling and extraordinary conditions," it granted California "a good deal of flexibility in assessing California's regulatory needs." *American Trucking Ass'ns*, *Inc. v. EPA*, 600 F.3d 624, 627 (D.C. Cir. 2010). The legislative history of the 1977 amendments to the Act strengthening the waiver provision underscores this point: the goal of the provision was "to afford California the broadest possible discretion" and EPA was "not to overturn California's judgment lightly" nor "substitute [its] judgment for that of the State." H.R. Rept. 95-294 at 301-302. EPA's attempt in the Waiver Withdrawal to deny California the flexibility to address the compelling and extraordinary conditions it faces, particularly in light of the long-term risks to California Parks' irreplaceable resources like the giant sequoia and the Joshua tree, represents just such a substitution of judgment.

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marine life. Nearshore Ocean Acidification at 11. This effect could have significant implications for Channel Islands and other coastal Parks.

C. The Zero-Emission Vehicle and Greenhouse Gas Regulations are Essential to Protect Parks in California from These Threats

EPA asserts in the Waiver Withdrawal that the Zero-Emission Vehicle and Greenhouse Gas Regulations are not needed to meet a compelling and extraordinary air pollution problem, on the basis that "greenhouse gases are an air pollution problem that is global in nature, and this air pollution problem does not bear the same causal link to factors local to California as do local or regional air pollution problems." 84 Fed. Reg. at 51,349. Here the Agency fundamentally misconstrues the criteria for issuance of a waiver by focusing on California's greenhouse gas emissions. As EPA noted in its 2013 waiver, Section 209(b) requires programmatic, not case-by-case, assessment of California's compelling and extraordinary pollution problems: "The issue of whether any particular standard provides comparable emission reductions is not a relevant criterion." 78 Fed. Reg. at 2,130. It is California's "underlying geographical and climatic conditions," not emission levels for any pollutant in particular, that justify its separate standards. *Id*. At the same time, by focusing solely on California's greenhouse gas emissions as justification for the Waiver Withdrawal, EPA ignores the Zero-Emission Vehicle Regulations' independent purpose and effect—and the Greenhouse Gas Regulations' independent effect—of addressing PM2.5 and ozone air pollution. *Id*.

But even if EPA's new interpretation were correct, the Agency also misunderstands the conditions California is facing. As demonstrated above, California Parks are already experiencing and will continue to suffer extreme damage and disruption due to climate change and air pollution. Under business as usual greenhouse gas emissions, Sierra Nevada snowpack could diminish by up to 85 percent by 2100 and Golden Gate National Recreation Area could suffer billions of dollars in sea level rise damage by the middle of the 2100s. Warming Impacts on California Snowpack at 2514-2515; Climate Change in Coastal Parks at 154. Yosemite and its neighbors already suffer from significantly reduced visibility due to ozone pollution and annual risk of devastating wildfires. As the Supreme Court has acknowledged, addressing these impacts will necessarily rely on incremental, multifaceted policies. *Massachusetts*, 549 U.S. at 524-525. EPA has previously determined that while Section 209(b) waivers are programmatic, not regulation-specific, reductions in greenhouse gas emissions from California vehicles under the Zero-Emission Vehicle and Greenhouse Gas Regulations will correlate to "a specific level of reduction in temperature" sufficient to demonstrate a "rational relationship" between the regulations and "amelioration of the air pollution problems in California." 74 Fed. Reg. at 32,766; *see also* 78 Fed. Reg. at 2,131 ("[T]here is a rational connection between California [Zero-Emission

Vehicle] standards and its attainment of long term air quality goals."). In the case of California Parks, this rational connection is particularly strong.

D. The Zero-Emission Vehicle and Greenhouse Gas Regulations Protect Parks in Section 177 States

In addition, Parks in Section 177 States stand to benefit significantly from the Zero-Emission Vehicle and Greenhouse Gas Regulations. For example, in Washington, climate change has already caused significant loss of glacier mass in Parks: The National Park Service has documented continued loss of mass since the 1990s at North Cascades National Park, totaling 32 million cubic meters between 2000 and 2009 alone. Climate Change Trends at 106; North Cascades Glacier Mass at 7-8. Over $2.5 billion of Park assets at New York's Gateway National Recreation Area face "high exposure" to sea level rise risk. Climate Change in Coastal Parks at 67. And as climate change progresses, Colorado's Rocky Mountain National Park may experience a 40-100 percent loss of permafrost. Wildlife like Northern Spotted Owls in Washington's Olympic National Park could face decreased survival and American bison in Colorado's Great Sand Dunes National Park will see reductions in their food quality. Climate Change Trends at 117-125. By eliminating the Zero-Emission Vehicle and Greenhouse Gas Regulations, the Waiver Withdrawal inhibits the ability of the Section 177 States to fight these threats, exacerbating the significant climate change and air pollution problems they are already facing.

CONCLUSION

National Parks and Park units in California are unique, indispensable resources that demonstrate the compelling and extraordinary air pollution conditions facing the state. California and the Section 177 States are at the front lines of the effort to limit the related risks of climate change and air pollution, and the Zero-Emission Vehicle and Greenhouse Gas Regulations are essential components of that effort. By misguidedly attempting to eliminate the authority to implement those programs, EPA's Waiver Withdrawal risks precisely the "obsolescence" that Congress meant to forestall when it designed the Clean Air Act. *Massachusetts*, 549 U.S. at 532. For the foregoing reasons, the above-captioned petitions should be granted.

Dated: July 1, 2020

Respectfully submitted,

/s/

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CERTIFICATE OF COMPLIANCE

I hereby certify that the foregoing brief is printed in 14-point font and contains 6,465 words exclusive of the certificate as to parties, rulings and related cases; statement regarding separate briefing; table of contents; table of authorities; glossary; signature lines; and certificates of compliance and service.

CERTIFICATE OF SERVICE

I hereby certify that on July 1, 2020, I electronically filed the foregoing brief with the Clerk of the Court for the United States Court of Appeals for the District of Columbia Circuit using the appellate CM/ECF system, which served a copy of the document on all counsel of record in the case.

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