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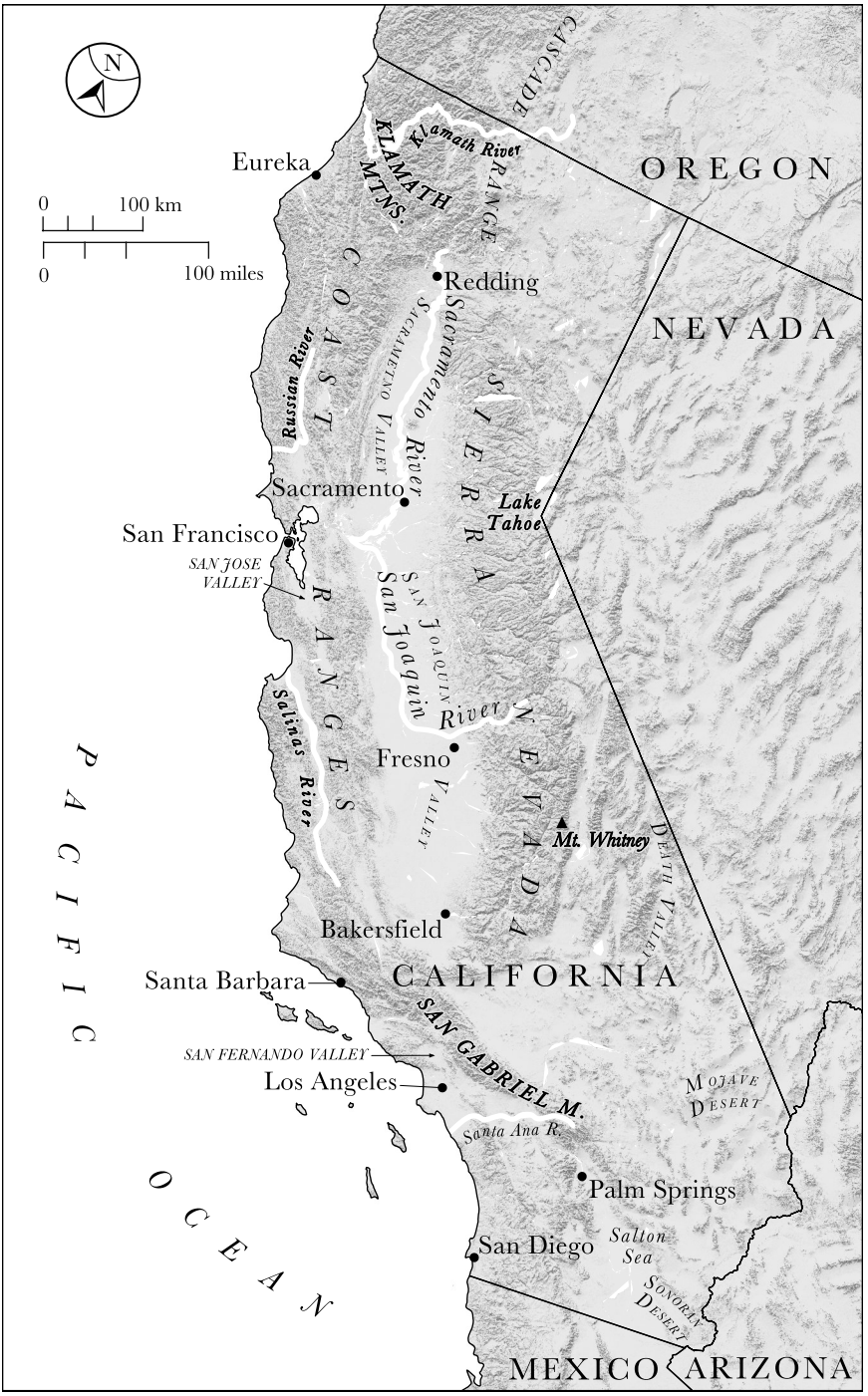
Introduction

The Golden State

The name *California* and its nickname "The Golden State" evoke a distinctive and unusually beautiful natural environment. As Josef Chytry has noted, "No land has been more often associated with the evocative term 'Paradise' than California."[1] The state's most striking attribute may well be its weather, which is arguably the best in the United States. California's geographic boundaries encompass North America's only Mediterranean climate, characterized by winter rain and dry summers. Winters are relatively mild in the coastal areas where most of its population lives, while Southern California has sunshine throughout the year. Most Americans imagine that those who live in California are happier because of the state's benign climate.[2] They believe, as the 1965 hit by the Mamas and Papas declared, "I'd be safe and warm / If I was in L. A. / California dreamin' / On such a winter's day."

The state has an unusually long and beautiful coastline—the longest of any state in the continental United States. The northern two-thirds of this 1,100-mile border on the Pacific Ocean contain much spectacular scenery, while the southern portion features miles of sand beaches. William Reilly has called this coast the "greatest" of the state's abundant natural treasures. "One has only to stand at the continent's western edge, confronting the Pacific Ocean from the California coast," he writes, "to understand the fascination so many people have for this memorable meeting place of land and water."[3]



MAP 1. The Geography of California

Inland, the state's forests along the western slopes of the Sierra Nevada contain the sequoias, and those in the northern and central coastal regions are home to the redwoods. These "Big Trees," which are only found in California, are not only the largest and oldest trees in the United States but the largest and oldest living species on the planet. To Kevin Starr, they are "among the natural wonders of the world . . . cathedrals of nature: cool, silent, the products of a profound historicity."[4]

These examples do not exhaust the attractiveness of the state's geography, which also includes San Francisco Bay; the unusual granite formations, rivers, and lakes of the Sierra Nevada Mountains, which form virtually the whole eastern boundary of the state; and the deserts of Southern California. California also contains both the highest (Mount Whitney) and lowest (Death Valley) elevations in the continental United States, as well as more national parks than any other state. For more than 150 years, Yosemite Valley has been one of the best-known and most widely visited scenic attractions in the United States. Not surprisingly, California's beauty and unique geography are two of the primary draws that bring residents and tourists to the state.[5]

Besides its beauty, the "Golden State" nickname also has a second association. According to some accounts, California's name was coined by the Spanish explorer Juan Cabrillo, who derived it from a sixteenth-century Spanish chivalric novel that described the legend of Califia, queen of a "mythical and wondrous land of riches." Upon arriving in what is now California, Cabrillo believed that he had found the physical source of this legend. The name stuck. Ever since, Gerald Nash observes, California "has been a symbol of wealth and abundance."[6]

Throughout its history, California's natural resources have been an important economic asset, with the state benefiting from its mountains of gold and silver, rapidly flowing rivers, thick forests, deposits of oil, and fertile agricultural lands. While its economy has since diversified, California remains the nation's largest agricultural producer and its third-largest oil producer.[7] It has been the nation's most populated state since 1962 and has had the largest gross domestic product (GDP) of any state since 1971. Were California a country, its economy would now be the sixth largest in the world, with its GDP surpassed only by China, Japan, Germany, the United Kingdom, and the United States.

This book describes and explains the long history of California's efforts to protect its unusually attractive but also highly fragile environment. It examines the politics and economics underlying several of the state's most

important environmental policy initiatives, beginning with the protection of Yosemite during the Civil War and continuing through the state's ambitious efforts to address the risks of climate change. It then draws upon these policies to explain why this particular state has consistently led the United States in adopting new environmental regulations and why being "greener" has become a central part of California's political identity. Finally, this book highlights the role that states have played and continue to play in making environmental policy in the American federal system—an important and timely subject.

A History of Environmental Policy Innovation

Other states in the United States contain many attractive natural features as well as abundant natural resources. But California is distinctive in one important respect. No other state has enacted so many innovative, comprehensive, and stringent environmental regulations over such a long period of time. Compared to all other states as well as the federal government, California has been a national leader in regulatory policymaking on issues ranging from forestry management, scenic land protection, air pollution, and coastal zone management to energy efficiency and global climate change. Its distinctive geography, high degree of citizen mobilization, business support for many environmental measures, and steadily growing administrative capacity have produced a continuous stream of environmental policy innovations in multiple areas over a long period of time. Consider the following examples, each of which are discussed and explained in the pages that follow:

- In 1864, only fourteen years after California became a state, Yosemite Valley and an adjacent grove of sequoias became the first publicly protected wilderness areas in the United States.
- In 1884, a federal court in northern California issued the nation's first important pro-environmental judicial ruling when it banned the dumping of gold mining debris into the rivers flowing into the Sacramento Valley.
- In 1885, California became one of the first states to regulate logging and promote reforestation, acting in advance of the federal government.
- By 1890, three of the nation's four national parks were located in California.
- In 1947, California enacted the first state air pollution control statute.

- From the 1940s through the 1960s, Los Angeles led all other cities and states as well as the federal government in its research and enforcement efforts to fight air pollution.[8]
- In 1964, California issued the nation's (and the world's) first emissions standards for pollutants from motor vehicles.
- In 1967, California became the only state permitted by the federal government to enact its own automotive emissions regulations.
- In 1969, California established the nation's first coastal protection agency in order to protect the San Francisco Bay.
- In 1976, California's Coastal Commission established the nation's most comprehensive regulations for coastal planning and land use controls.
- In 1977, California adopted the nation's first energy efficiency standards for appliances.
- In 1979, California adopted the first state energy-efficient building code.
- In 1982, California became the first state to introduce "decoupling," which incentivized utilities to meet the state's energy needs through efficiency and conservation measures rather than by building new power plants.
- In 2002, California enacted the world's first restrictions on tailpipe emissions of greenhouse gases. That same year, it adopted the nation's most stringent and comprehensive renewable energy mandate, which has been progressively strengthened. Under current targets, utilities will be required to generate 33 percent of their energy from renewable sources by 2020 and 50 percent by 2030.
- In 2006, California passed the most ambitious climate change legislation ever enacted in North America. The Global Warming Solutions Act required California to reduce its greenhouse gas (GHG) emissions to 1990 levels by 2020—a goal that the state was on target to meet in 2017. Legislation enacted in 2016 extended and strengthened this mandate, requiring GHG emissions to decline 40 percent below their 1990 levels by 2030.

Challenges and Accomplishments

All governments frequently confront the tension between economic development and population growth on one hand and the need to protect the

environment on the other. The mobilization of political and regulatory responses to environmental degradation is always difficult and often occurs too late. California has faced and continues to face economic and environmental challenges in protecting its coasts, rivers, valleys, and forests; managing its limited water resources; protecting its air quality; and achieving its climate change goals. In doing so, the state has accepted certain trade-offs: its environmental regulations are an important reason why Californians pay significantly more for gasoline and have among the nation's highest residential and commercial energy rates. Land use and other environmental controls have raised the costs of doing business in the state, increased housing costs, and reduced its share of manufacturing investment and employment.

Reasonable people can and do disagree as to whether California has struck the appropriate policy balance between protection of its environment and growth of its economy and whether in particular cases it has protected its environment too strictly or not strictly enough. Not all of the state's environmental regulations have been either sensible or practicable. Many have been adopted after considerable delay and in some cases only after irreversible harm to the state's natural environment has occurred. Additional regulations are undoubtedly needed. But given the substantial and continuing challenges that it has faced, California's long-standing efforts to protect the quality of its natural environment are noteworthy. Overall, it has done a better job than most states—and certainly the United States as a whole—in balancing the ongoing challenges of integrating economic development and environmental protection. With a population of more than 39 million and a GDP of $2.46 trillion, California remains in both dimensions of beauty and wealth a "golden state."

This book describes what is in many respects a remarkable success story. It demonstrates how a state government has been able to overcome substantial obstacles and enact a wide range of regulations that have made measurable—though admittedly uneven—progress in protecting its environment and improving the quality of life of its residents. Although California has often seemed on the verge of ecological (as well as economic) catastrophe, it has proven remarkably resilient. The state's ability to remain the most important source of environmental policy innovation in the United States over so many decades and across such a diverse range of policy areas is a significant accomplishment. It is worth understanding why and how this particular state came to play such an important leadership role in this area, as well as the broader policy implications of such leadership.

Federalism and the "California Effect"

One key implication of California's leadership on environmental action has to do with the environmental policy role of states in the nation. The United States is a federal system in which states play important roles in shaping policy. This is certainly so in the area of environmental policy. In 1932, Supreme Court Justice Louis Brandeis wrote: "It is one of the happiest incidents of the federal system that a single courageous state may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country."[9] No state in the United States has exercised its discretion over environmental regulation as extensively as California. In this area, it has been the nation's most "courageous" state and its most important and influential policy "laboratory."

Nor has any state had as much impact on the environmental regulations of the federal government as well as on other states. This pattern of state policy leadership and diffusion has come to be labeled the "California effect."[10] Consistently at the cutting edge of most environmental policy innovations in the United States, California, in the words of Wendy Leavitt, "casts a long shadow across the U.S."[11]

The state's protection of Yosemite in 1864 served as the inspiration for the creation of the nation's first official national park, Yellowstone National Park, in 1872, as well as for the establishment of the Adirondack Forest Preserve in 1883. After other states were given the option of adopting automotive emissions standards set either by the California Air Resources Board or by the federal Environmental Protection Agency (EPA), thirteen states plus the District of Columbia, which account for one-third of all cars sold in the United States, chose California standards. Nine other states follow California's zero-emissions vehicle mandates. The size of California's market, when added to that of those states that have adopted its emissions standards, has given California regulators important leverage over American automobile production. As Barry Rabe has said, "As California goes, at least in air pollution, so goes the nation."[12]

Several of California's most innovative vehicle pollution regulations were subsequently adopted by the federal government, including the requirement that cars be equipped with two-way catalytic converters and use unleaded gasoline. Since the mid 1960s, federal standards for health-related pollutants from motor vehicles have often tracked those of California. Most recently, California's pioneering tailpipe greenhouse gas emissions standards became

the basis for rules issued by the Obama administration. According to former EPA administrator William Reilly, "Had California never introduced its groundbreaking clean-cars standards in 2002, we would never be where we are today as a nation—cruising toward 43.5 mpg and growing healthy markets for hybrid vehicles, plug-in hybrids, clean diesels, electric and other innovative technologies."[13] The federal government also followed California's lead by issuing energy efficiency standards for appliances, with other states and many national appliance firms following suit. In the important policy area of global climate change, states have become the most important initiators of regulatory policy in the United States. The state that has played the most active and influential role in addressing the risks of global climate change is California.

Californians have also played national leadership roles in promoting environmental protection. From the later decades of the nineteenth century through the beginning of the twentieth, John Muir was the nation's most prominent advocate of nature protection. Stephen Mather, Horace Albright, and William Kent were instrumental in the 1916 creation of the national park system. More recently, Democratic California congressman Henry Waxman (1975–2015) was an influential supporter of federal environmental legislation, while California governor Arnold Schwarzenegger (2003–2009) was a prominent international advocate of using public policy to address the risks of global climate change.

Following the 2016 election of President Donald Trump, California governor Jerry Brown (2009–present) emerged as a leading defender of environmental "states' rights" in opposition to the deregulatory initiatives of the Trump administration.[14] To the extent that stringent environmental policies are now more likely to come from states rather than the federal government, states such as California represent the future of environmental policy innovation in the United States.

What happens in California also has a global impact. During the 1980s, the relative stringency of California's vehicle emissions standards was an important reason why Germany chose to support the adoption of similar standards by the European Economic Community.[15] Not only was the United States a major export market for German cars, but half of all German car sales in the United States were to California. More recently, according to Mario Molina, a Nobel Prize–winning scientist from Mexico, "the rest of the global economy is looking to California, as one of the world's largest economies, to take the lead" in addressing the risks of global climate change.[16] The state has come to play an increasingly active international role, cooperating

with national and local governments throughout the world to reduce and mitigate the effects of greenhouse gas emissions, efforts that accelerated following the withdrawal of the United States from the Paris global climate change agreement in 2017. Understanding California's long-standing efforts and achievements in protecting its own environment and exercising both national and global regulatory leadership is thus both important and timely.

Environmental Threats

California's geography and its environmental policies are closely connected. An important key to California's long-standing regulatory leadership has been the continuous threats faced by its beautiful and abundant but also highly vulnerable and fragile natural environment. As James Parsons argues, "The regional consciousness of Californians, remarkably strong for so restless and rootless a population, has its origins in the common problems and interests imposed by geography."[17] Here, I note a few of the most significant environmental threats that have spurred regulatory action in the Golden State.

Hydraulic Mining. Notwithstanding the iconic image of the "forty-niner" panning for gold flakes in a clear mountain stream, gold mining in California may well have been the most environmentally destructive natural resource development in nineteenth-century America. Beginning in the 1850s, hydraulic gold mining radically transformed the lower Sierras and the Sacramento Valley. As one contemporary observer put it, California "resembled a princess captured by bandits who cut off her hands to obtain the rings on her fingers."[18] Debris from hydraulic mining filled the rivers that flowed from the Sierras, causing them to overflow their banks, periodically flood the cities of the Sacramento Valley—including the state's capital—and cover large acres of formerly fertile farmlands with toxic sludge.

Redwood Extraction. Between 1890 and 1910, one quarter of all the mature redwoods in California were harvested, and the rate of redwood logging subsequently accelerated. The First World War substantially increased the demand for redwoods, which were extensively used at military bases in the United States and France. The newly formed California Redwood Association also began to aggressively pursue international markets opened up by the construction of the Panama Canal. As one scholar summed it up, "All in all, 1917 was a terrible year to be an old redwood."[19]

Oil Production. During the first decades of the twentieth century, California led the United States in oil production. More than 1,000 oil wells were

drilled within the city limits of Los Angeles, and more than 100 offshore wells were dug in Southern California, filling the region's beaches with derricks, drilling piers, fences, and pipes and leaving them fouled by oil spills. It was not uncommon for people to sunbathe surrounded by oil rigs. Both on the beaches and in residential areas, wooden derricks, open oil tanks, and spilled crude oil often caught fire, and there were frequent explosions of natural gas.

Air Pollution. In the 1940s, a haze obscured Catalina Island off the coast of Los Angeles as well as the mountains to the east. It was not uncommon for the smog to engulf the city, causing myriad respiratory ailments in its citizens.[20] The nearly 3 million cars registered in Los Angeles County in 1956 represented "the greatest concentration of motor vehicles in the world."[21] Thanks also to its topography and industrial and population growth, the Los Angeles region soon had the worst air quality in the United States. During the 1970s, Los Angeles averaged 125 Stage 1 smog alerts per year—more than any other American city.

Coastal Oil Spills. In 1969, the largest offshore oil spill in the United States up to that date occurred off the coast of Santa Barbara. By the time the leak from the well was finally sealed, it had deposited between 2 and 3 million gallons of oil in the Santa Barbara Channel. The spill impacted 800 square miles of ocean and coated more than thirty-five miles of coastline with deposits of oil up to six inches thick.

Coastal Degradation. While California's state constitution legally guarantees public access to the coast, during the 1960s only one-fifth of that area was available for public use.[22] By 1960, nearly a third of the San Francisco Bay had disappeared as a result of land reclamation, with the rate of infill also accelerating.

Energy and Climate Change. In 1972, a government report predicted that unless California was able to reverse its current trajectory of increasing energy consumption, utilities would need to construct an additional 130 new power plants by 2002, with their emissions expected to adversely affect the state's air quality and their construction to threaten the state's scenic areas, including its coast. A 2004 report provided a quantitative estimate of how California would be threatened by global climate change. Specifically, a rise in summer temperatures would increase the risks of forest fires, while warmer winters would reduce the size and density of the snowpack in the Sierras, endangering the state's water supply. California would also experience rising sea levels along its Pacific shore.

Key Policy Decisions

The above examples of environmental degradation are not unique to California, especially prior to the 1970s. Before that time, oil development often led to a deterioration of environmental quality both in urban areas and along the country's coastlines. As bays and rivers became highly polluted, cities also experienced deteriorating air quality or expanded by filling in their bays. Much of the coast along the southern and eastern borders of the United States became publicly inaccessible, and substantial deforestation occurred in many states. Global warming also adversely affects other states. However, it does not necessarily follow that because a state's environment has been threatened, it will choose to strengthen its environmental regulations. Certainly, many states have responded to such challenges differently.

In California, things could just as easily have not turned out so well: the state could have readily become a "paradise lost."[23] At many critical junctures, policymakers in California could have made different policy decisions. The debris flowing from the foothills of the Sierras could have continued unchecked until all the gold was exhausted. Many more of the redwoods could have been cut down for lumber. The air in Southern California could have continued to deteriorate, and its beaches could have continued to be used for oil drilling. Public access to and use of the coast could have been increasingly restricted, coastal oil drilling could have continued to expand, and the San Francisco Bay could have been steadily filled in. Likewise, the state could have met its increasing demands for energy by continuing to build more fossil fuel power plants.

None of these outcomes occurred, however, because at several key points, California enacted public policies that halted, slowed down, or reversed much of the environmental deterioration that had taken place or threatened to take place. *California's attractive geography gave it the potential to be a desirable state in which to live, invest, work, and vacation. But without effective government regulation, that potential would have been squandered.* What distinguishes California, then, is not that its current environmental quality is necessarily better than that of any other state. Rather, its distinction—and achievement—lies in its ability to maintain a relatively, and in some respects remarkably, beautiful natural environment in the face of the magnitude of the threats posed to it—threats rooted in the state's distinctive geography and exacerbated by its continuous and often-rapid economic and population growth.

Explaining California's "Greening"

How can we account for California's "greening"? The state's unique geography has played an important role in shaping both the threats the state has faced and how it has responded to them. Had California contained fewer valuable natural resources, its environment would have been less threatened. Had California's environment been less beautiful, there might have been less public and business support for defending it against such threats. But geography does not by itself create public policies.

This book demonstrates the importance of three interconnected political, economic, and institutional factors that have shaped the state's policy responses to the threats and opportunities created by its geography: (1) citizen mobilization, (2) business support for critical environmental policy initiatives, and (3) the state's regulatory capacity. These factors' relative roles in shaping particular regulatory policies have varied, but collectively they help us understand why California's environmental policies have long been so distinctive.

CITIZEN MOBILIZATION

For a critical number of residents, living in California has been associated with the expectation of being able to enjoy, experience, or benefit from the consumption of a wide range of (public) environmental goods. This in turn has helped create an influential political constituency that has supported environmental regulation. Such values and interests have deep historical roots. The formation of the Sierra Club in 1892 by a group of academics, professionals, and businessmen from the San Francisco Bay Area gave expression to a distinctively California relationship to the outdoors, one that reflected "a deep California hope: that a regional heritage could be defined and protected," as well as enjoyed.[24]

In this context, it is important to appreciate the political importance of the highly visible threats to California's environment that have emerged throughout the state's history. This visibility has made it easier for citizens to become mobilized. Californians could actually witness the destruction and defacement of the ancient groves of sequoias and redwoods, the destructive impact of the debris-filled rivers flowing from the Sierras, the deterioration of air quality in the Los Angeles Basin and other urban areas, the oil rigs on the beaches of Southern California, the devastation of the oil spill in Santa Barbara, the loss of public access to California's coast, and the filling in of the San Francisco Bay.

An important reason for the broad political support that many of the state's environmental policy initiatives have enjoyed has been the benefit many Californians have received from those initiatives. Environmental regulations have made a material difference in the quality of life of Californians: they can visit the state's beaches, engage in nature recreation, enjoy the coastal views of the ocean, and, perhaps most importantly, breathe cleaner air. None of those public goods would have been as available without extensive government regulation.

The phrase "not in my backyard," or NIMBY, has been typically used to describe the narrow self-interest of local residents opposed to developments that adversely affect their particular neighborhood. But looked at more broadly, such a concept can help illuminate the extent of public support for environmental regulation in California. Historically, the state's citizens have focused on protecting environmental amenities that, for them, have been located in their "backyards."

The intensity and extent of grassroots support for environmental protection in California may be related to the fact that many of California's cities are located close to the state's unique natural wonders.[25] This in turn has given many of the state's urban residents a sense of "ownership" toward them: they are part of their (public) property. Richard Walker writes:

> The unity of country and city is evident in the San Francisco Bay Area. People here have commonly been immersed in the city *and* in love with the country, notably Yosemite, Lake Tahoe and Big Sur. . . . The most cherished environments of the Bay Area have often been ones nearest the city, because they have been the most accessible, the most visible, and the most threatened. These are sainted venues like Muir Woods, Napa Valley and Point Reyes.[26]

Much the same is true of Southern California. The region's warm and sunny weather, along with its beaches and ocean views, is a major part of the attraction of living there. This has given its residents a strong material interest in protecting its air quality as well as opposing oil drilling offshore and on its beaches. After all, what is the point of living in Southern California if you have to breathe unhealthy air or are unable to enjoy its beaches, sunshine, and ocean views?

Historically, much environmental activism in California has been rooted in local geographic threats. For example, coastal oil drilling was opposed by those from Southern California, smog was originally seen as a problem only for those in Los Angeles, and the protection of the sequoias in the Sierras

and the redwoods along the coast primarily engaged those who lived in the San Francisco Bay Area. But in the late 1960s and early 1970s, the "backyard" of Californians became defined more broadly: rather than "not in my city" or "not in my region," their opposition to environmental threats came to mean "not in my state."

This broader geographic perspective, or emergence of a "green" state political identity and culture, is clearly reflected in three events: the broad statewide opposition to the proposed federal preemption of automobile emissions standards in 1967; the 1972 backing for coastal protection by voters in both northern and Southern California; and, more recently, widespread public support for state policies to address the threats posed by global climate change to the state's forests, coast, and water supply.

Another important change has marked citizen mobilization in California. During the nineteenth and early twentieth centuries, much environmental activism was elite driven. The memberships of the Sierra Club, Sempervirens Club, and Save-the-Redwoods League were relatively small and dominated by professionals and businessmen. But over time efforts to protect the state's environment began to mobilize larger numbers of citizens. The campaigns to improve air quality in Los Angeles, protect the San Francisco Bay, and ensure public access to the Pacific coast during the middle decades of the twentieth century were largely grassroots affairs. More recently, the growth in the number, size, and influence of environmental organizations in California has played a critical role in the enactment of state policies to promote energy efficiency and reduce greenhouse gas emissions.

BUSINESS SUPPORT

Had a unified business community opposed the regulatory policies supported by citizens and civic groups in California, far fewer of them would have been enacted. But the politics of environmental protection in California have typically been characterized by a lack of business unity. The interests of business have frequently been divided, with some firms and industries supporting more stringent standards and others opposing them. Significantly, the more politically influential firms or industries have had a financial stake in placing California on a "greener" growth trajectory.

Throughout its history, numerous important business interests in California have supported stronger environmental protections. These include the railroads that wanted to protect the sequoias in the Sierras in order to profit by bringing more tourists to California, the farmers in the Sacramento

Valley whose property was being damaged by the debris from gold mining, the shoreline real estate developers who wanted to keep oil companies off the beaches and out of offshore waters in Southern California in order to make the coast a more attractive place to live and visit, and the real estate and other business interests in Los Angeles that feared that the city's worsening air quality would threaten the region's economic growth.

More recently, firms and investors in California's large and influential clean technology sector have backed many of the state's climate change initiatives. The state's renewable energy sector was largely created by state regulatory requirements and then became an active advocate for expanding them. Policies to promote the sale of electric cars to help meet the state's climate change goals have been backed not only by car manufacturing firms based in California such as Tesla, but also by the state's utilities, which are eager for new sources of revenue from electric vehicle charging stations.

Baptist–Bootlegger Coalitions. The division of business interests over environmental issues has made possible the formation of alliances called *Baptist–bootlegger coalitions*—with "Baptist" referring to civic or environmental organizations and "bootleggers" to members of the business community with green policy preferences.[27] These parties have often cooperated to challenge business firms and industries advocating weaker environmental regulations. For example, during the 1940s and 1950s, both citizen groups and the Los Angeles Chamber of Commerce supported controls on automotive emissions, which were in turn opposed by the Detroit-based car manufacturers. In 2010, the state's clean technology firms cooperated with environmental organizations to defeat the efforts of oil companies to roll back the state's GHG emissions reduction goals. In sum, an important reason why California has been able to adopt and maintain so many relatively stringent, comprehensive, and innovative environmental regulations is *that many of these policies have created both public/collective goods and private/pecuniary benefits*. As will become clear throughout this book, Baptist–bootlegger alliances in California have been both frequent and influential.

REGULATORY CAPACITY

A third component of the state's long record of environmental policy leadership has been the growth in its regulatory capacity and the quality of its public administration. Starting in the Progressive Era, California began to give regulatory authority to a wide array of professionally managed, quasi-independent boards and commissions. These bodies include the Fish and

Game Commission (established in 1909, although preceded by the Board of Fish Commissioners in 1870, the first wildlife conservation agency in the country), the Public Utilities Commission (established in 1911 as the Railroad Commission), the California State Parks and Recreation Commission (established in 1927 as the State Park Commission), the California State Lands Commission (established in 1938), the Water Resources Control Board (established in 1967, although preceded by the State Water Pollution Control Board established by the Dickey Water Pollution Act of 1949), the Bay Conservation and Development Commission (established in 1965 and the nation's oldest coastal zone agency), the California Air Resources Board (CARB; established in 1967), the Coastal Commission (established in 1972), and the California Energy Commission (CEC; established in 1974), along with several regional air and water boards and commissions.

These regulatory institutions, whose number and scope have grown over time, have enabled California to develop its own regulatory expertise and administrative capacity independent of the federal government. The most important of these has been the CARB, which during its fifty years has developed into what Carlson calls "one of the most sophisticated and well-regarded environmental agencies in the world."[28] With the largest staff and budget of any state environmental regulatory body, the CARB is second in size and influence only to the federal EPA. In light of its impressive record in improving the state's air quality, in 2006 the state legislature gave the CARB sweeping authority to administer the state's wide-ranging efforts to reduce greenhouse gas emissions. The CARB was also the regulatory agency that played a critical role in documenting and exposing the Volkswagen "dieselgate" scandal in 2015.[29]

Taken together, the measurable and often visible accomplishments of the state's regulations and regulatory institutions have created and sustained a political tradition that has placed a high value on regulatory policy innovation. Being a national environmental leader has become part of the state's political identity.

Other Explanations

These three factors—citizen mobilization, business support, and the state's regulatory capacity—are what I consider to be the primary drivers of California's "greening." But other factors too may have played a role in this process. Here I examine several other possible drivers.

California's physical distance from Washington, DC, may well have contributed to the state's history of regulatory independence on environmental matters. But it is important to recognize that geographic distance from the nation's capital could just as easily have led California in the opposite direction of supporting weaker environmental regulations, as some other western states and Alaska have done.

Similarly, the state's relative geographic isolation—its western border is the Pacific Ocean and its eastern the high Sierra Nevada mountain range—may have played a role in its policy trajectory. Unlike many other states, most notably in the Northeast and the Midwest, much of California's air and water pollution both originates in and remains within the state. This geographic autonomy has made it possible for the state to internalize both the costs and the benefits of many of its pollution control policies.

What about the importance of California's wealth or the size of its GDP? California's pattern of environmental policy innovation long predates its relatively recent emergence as a "rich" state. Moreover, California ranks fifteenth among American states in per capita income. In addition, Texas, Florida, and Illinois are among the five states with the largest GDPs—and none have played leadership roles in environmental protection.

Nonetheless, there are three important ways in which the relative size of California's economy has had an impact on its environmental policies. The first has to do with the capacity of its public administration. California has benefited from important economies of scale in the management of regulatory agencies such as the CARB or the California Energy Commission. States with smaller GDPs may well have found it more difficult to develop and support regulatory bodies with sufficient scientific and technical expertise to craft so many of their own regulations (though this would not explain why other large rich states have not done so). Second, the relatively large size of California's market has given the state considerable economic leverage, increasing both the willingness and the ability of national and global firms to make products that meet California's distinctive regulatory standards. Third, both the large size of the state's economy and its relative attractiveness as a place to invest have given the state a certain amount of economic independence, making California less vulnerable to industrial flight in response to excessive regulatory burdens.

Another plausible explanation for California's distinctive environmental policies has to do with partisan politics. In recent years, California has certainly become the "bluest" of states. The 2016 elections marked the seventh

consecutive time the state's electoral votes went to a Democratic presidential candidate. California last elected a Republican senator in 1994, and in 2017, thirty-seven of the state's fifty-three members of the House of Representatives were Democrats, as was the state's two-term governor and two-thirds of its legislature. With the exception of Governor Arnold Schwarzenegger, no Republican has been elected to any of California's eight statewide offices since 2006. California is now one of only six states in which Democrats control both the governorship and both houses of the state legislature. In light of the increase in partisan polarization over environmental regulation in general, and climate change in particular, it would certainly be plausible to ascribe California's "green" policy preferences to the electoral strength of the Democratic Party and the electoral weakness of the Republican Party within the state.

That, however, would be reading the present into the past. Notably, the state's most important global climate change policies were enacted with the strong backing of Republican governor Arnold Schwarzenegger (2003–2011). Republican governor Ronald Reagan (1967–1975) signed the legislation establishing the California Air Resources Board, the Bay Conservation and Development Commission, and the California Energy Commission, as well as the California Environmental Quality Act. The 1988 California Clean Air Act was signed into law by Republican governor George Deukmejian, while the Coastal Commission's authority was expanded during the administration of Republican governor Pete Wilson (1991–1999). The state's 1967 campaign to persuade Congress to allow California to have its own automotive emissions standards was backed by its entire congressional delegation, including its two Republican senators, Thomas Kuchel and George Murphy. Looking further back, the state's first air pollution control statute was signed by Republican governor Earl Warren (1943–1953).

Nor has California always been such a solidly Democratic state. With the exception of the 1964 election, Republican presidential candidates carried the state from 1952 to 1988. Of the state's nine governors since 1953, five have been Republicans. Through the 1980s Southern California was largely a conservative Republican Party stronghold. Yet this did not prevent its citizens from opposing local oil drilling, backing stronger controls on automotive emissions, and voting for the 1972 California Coastal Initiative.

In sum, California's history of environmental policy innovation owes at least as much to a Republican Party that has included politicians and voters who have supported environmental regulation as it does to the recent electoral strength of Democrats within the state. More recently, the relative

political weakness of the Republican Party in California compared to its electoral strength at the national level has increased the divergence in environmental policymaking between Sacramento and Washington. However, in 2017, eight Republican members of the state legislature supported the extension of cap-and-trade.

A Lighter Shade of Green

However, the depiction of California as a "green" state needs balance. It is important to note that California's environmental performance has also had important shortcomings, which also need to be explained. Two of the most significant involve motor vehicles and water management. Both are linked to the interaction of public policy and geography.

First, because of both its land use patterns, which have promoted suburban sprawl—especially in Southern California—and the extensive construction of freeways throughout the state, motor vehicles have always been and remain a significant source of harmful air pollutants in California. This has been especially true in Los Angeles, the topography of which has exacerbated its air pollution levels. Notwithstanding the state's considerable progress in reducing vehicular emissions, six of the seven American cities with the worst air quality are in California.[30] Steady increases in the numbers of personal and commercial vehicles owned and miles driven represent a major challenge to the state's ability to maintain its air quality and achieve its long-term goal of reducing greenhouse gas emissions. Californians may care about their environment, but they also need and want to drive their cars. Currently, the state has more than 18 million registered vehicles, double the number in Texas or New York, and Californians are driving more than 332 billion miles a year.[31]

California finds itself on a treadmill. The more it grows economically, the greater the challenges it faces in protecting its fragile environment. A larger GDP means more cars and trucks, which exacerbate the state's levels of air pollution, as well as produce more congestion. Most critically, the more rapidly the state grows, the more difficulty it will face meeting its ambitious long-term greenhouse gas reduction goals.

The most effective way California could better protect its environmental quality and the quality of life of many of its residents while simultaneously reducing its carbon footprint would be to grow more slowly. This, however, would be a political nonstarter, a reality that reveals an important limit to the state's embrace of environmentalism. Californians value both economic

growth and environmental quality. Compared to the federal government and many other states, California may be *relatively* "green," but both its economy and the lifestyle of its citizens are far from "sustainable."

California's second major environmental shortcoming has to do with the state's water management. In this case, geography has not been kind to California. Because the state receives no precipitation for most of the year and most of this precipitation falls in the northern part of the state—while most of its population resides in the south—California must store and transport significant quantities of water. Consequently, no state has so extensively transformed—and often disfigured—its natural watersheds. The construction of 1,400 dams and 1,300 reservoirs has led to the damming of virtually all of the state's formerly free-flowing rivers, the inundation of valleys throughout the state, and the draining of several lakes. These actions have also led to the shrinkage of the Sacramento–San Joaquin Delta, which is responsible for two-thirds of the state's water supplies, as well as damages to its marine life.

While this extensive hydraulic management system made possible the state's urban growth along its coasts, promoted flood control, and allowed greater irrigation of farmlands, its overextension permitted the expansion of agriculture into parts of the state that are essentially deserts. Few states have used water as prodigiously or as inefficiently as California, especially for agriculture. The demand for water in California appears inexhaustible: the more that is made available, the more that is used, and the more that is used, the more that is demanded. At the same time, global warming threatens the state's water supplies.

When it comes to water management, the three broad factors that have shaped the state's other environmental regulations have remained influential but have had the opposite policy impact to those seen elsewhere. Historically, Californians have strongly supported the expansion of the state's water management initiatives, consistently voting for bond issues to finance them at both the local and state levels. Until relatively recently, there had been little public interest in protecting the interior rivers and valleys where much of the state's hydraulic infrastructure has been constructed. On this issue, business interests have been unified: both agricultural and urban businesses have all wanted more abundant water. Alliances between citizens and business interests have thus weakened rather than strengthened environmental protection. Finally, it is precisely the expansion of the public sector's administrative capacity that has made possible the development and management of the state's extensive water management infrastructure.

Both these examples illustrate the important trade-offs that California has faced and the often-uneven progress it has made in protecting its environmental quality. They also offer important insights into some of the constraints governments face in protecting the environment.

The Scope of the Book

This book presents a selective rather than comprehensive history of environmental policy in California, omitting many important policy areas ranging from chemical regulation to the regulation of stationary sources of air pollution and giving many of the state's environmental accomplishments and shortcomings less attention than they deserve. Rather, its aim is to provide a sweeping historical overview of several of the most critical environmental challenges California has faced and explain why and how it has responded to them.

The following six chapters each explore a different dimension of the state's history of regulatory policy innovation. They focus, roughly chronologically, on the environmental impacts of gold mining, the protection of forests and other scenic areas, coastal protection, the management of water resources, automobile emissions, and energy efficiency and global climate change. The concluding chapter reviews the key themes of the book and explores some of its broader implications, including the geographic roots of environmental activism, the role of business in environmental policymaking, and the economic and political constraints faced by regulators. It also discusses the increasingly important role states are playing in environmental protection in the United States and shows how California has economically benefited from its environmental policy leadership.