

HOW THE GOLDEN STATE BECAME GREEN:
THE GEOGRAPHIC ORIGINS OF ENVIRONMENTAL
PROTECTION IN CALIFORNIA

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This paper draws on material for a book in progress that describes and explains California's distinctive pattern of environmental policy-making from the 1860s through the present. Comments and suggestions are appreciated.

Introduction

Scholars have long recognized the distinctiveness of California's record of environmental regulation as well as its broader policy impact. According to Farrell and Hanemann, "the state is a well-established leader on environmental policy [and] has played a leadership role in advancing environmental and energy policy in advance of the U.S. federal government, including efforts to improve air quality starting in the 1950s and energy efficiency since the 1970s."¹ Samuel Hays writes that "California was often the lead state, originating policies in coast-zone management, environmental-impact analysis, state parks, forest management practices, open-space planning, energy alternatives, air-pollution control, and hazardous waste disposal." He adds: "Often environmentalists sought to apply California's initiatives to the rest of the nation."²

Kevin Golden observes that "California has a rich history as a national leader in promoting nontraditional energy approaches."³ It has also taken "the most ambitious and comprehensive effort to control greenhouse gas (GHG) emissions in North America."⁴ Roland-Holst notes that that "California's leadership in energy efficiency, from utility programs to standards, has put the state on an energy consumption path that has diverged greatly from the nation's path."⁵ The term "California effect" was originally coined to characterize the state's role in strengthening regulatory standards outside its borders, most notably through its automotive emission standards. The term has subsequently been employed to characterize the gap between the state's lower per capita electricity use and that of the rest of the United States.⁶

While there is a large historical and contemporary literature on state environmental policies, a key question remains to be addressed: why has California been the major innovator of environmental regulations in the United States and why has it typically adopted more stringent and comprehensive standards than the other forty-nine other states? In short, what has made California so distinctive? This paper represents a preliminary effort to answer these questions. In order to explore the origins of the state's role as a regulatory policy leader and innovator, it focuses on the century between the 1860s and the early 1970s

This paper suggests that the distinctiveness of environmental policy innovation in California is due to the confluence of four factors: the unusual attractiveness or appeal of its natural environment, the continual threats to the quality of that environment caused by both population and economic growth, influential citizens and civic organization who have been engaged in

¹ Alexander Farrell and W. Michael Hanemann, "Field Notes on the Political Economy of California Climate Policy," in *Changing Climates in North American Politics: Institutions, Policymaking, and Multilevel Governance* Henrik Selin and Stacy D. VanDeveer, eds. (Cambridge: MIT Press, 2009) p.91. 89

² Samuel Hays, *Beauty, Health and Permanence: Environmental Policies in the United States. 1955-1985* (Cambridge: Cambridge University Press, 1987) p.44

³ Kevin Golden "Senate Bill 1078: The Renewable Portfolio Standard – California Assets Its Renewable Energy Leadership." *Ecology Law Quarterly* Volume 30 (2003) P. 667

⁴ Farrell and Hanemann, p. 88. See also Berry Rabe, "A New Era in States' Climate Change Policies?," in *Changing Climate Politics*, Yael Wolinsky-Nahmias, ed (CQ Press, 2015) pp. 66-67

⁵ David Roland-Holst, "Energy Efficiency, Innovation, and Job Creation in California," CERES Research Paper, October 2008, p. 25

⁶ David Vogel, *Trading Up: Consumer and Environmental Regulation in Global Economy* (Cambridge: Harvard University Press, 1995) Arthur Rosenfeld with Deborah Poskanzer, "A Graph In Worth a Thousand Gigawatt-Hours: How California Came to Lead the United States in Energy Efficiency" *Innovations* Fall 2009, p. 59

protecting or restoring the quality of the state's environment, and business interests who have financially benefited from stronger environmental protections.

None of these four factors are necessarily unique to California. What distinguishes California from the other forty-nine states is the relative importance and interaction of *each* of them. For example, many other states, especially in the western regions of the United States, have many attractive natural features. But compared to California, these states have historically been relatively sparsely populated and have had lower rates of economic growth. What distinguishes California from these states is *both* the attractiveness of its natural environment and the extent to which that attractiveness has been continually threatened and often damaged.

Gold mining was arguably the most destructive natural resource development in the United States in the 19th century and Los Angeles had the worst air quality in the United States during the 20th century. But other states have certainly experienced the deterioration of their natural environments. Why, then, have policymakers in California often responded to these and other important cases of environmental harms by enacting a wide range of unusually stringent controls over businesses? Why has the state's laws frequently – though certainly not always – effectively challenged firms and industries who were profiting from harming its natural environment?

My explanation is twofold. First, significant numbers of affluent California citizens have had a material interest in maintaining or restoring various features of the state's unusually attractive natural environment. The state's natural beauty has long been a critical component of its identity and appeal as a place to live and work. It is much of what makes the Golden State "golden." Accordingly, groups of influential citizens have periodically mobilized to support regulations that protect the state's environmental quality, especially those features that are physically contiguous to them. Second, due in part to the state's several attractive natural features, stronger environmental protection has yielded important business benefits. Many business firms or industries have been economically advantaged by regulations that protect the state's environmental quality.

Throughout the state's history, both civic groups and segments of the state's business community have played a critical political role, sometimes independently and often in cooperation with one another, in supporting more stringent environmental regulations. *Without both strong green civic activism and the backing of influential business firms, California's regulations to protect its natural environment would have been much less stringent and innovative.* Put differently, California's geographical beauty and weather gave it the *potential* to be a desirable place to live, work, and visit. But due to both its economic growth and the vulnerability of its natural environment, without effective regulations, that potential would not have been realized. In essence, *California put substantial efforts to environmental regulation both because it had more to lose from environmental deterioration and more to gain by protecting its environmental quality.*

This paper begins by describing the deep historical roots of environmental protection in California. It then discusses in more detail each of the four factors that have shaped the state's historical pattern of environmental policymaking, with a particular focus on the two most important historical threats to the state's environmental quality, namely gold mining in northern California and air pollution in southern California.

Historical Roots

While most of the policy initiatives in which California has played a leadership role have taken place since the 1960s, environmental protection in California has deep historical roots. It dates from 1864 – only fourteen years after it became a state. In the midst of the Civil War President Lincoln signed legislation that gave Yosemite Valley and an adjacent grove of sequoias totaling 60 square miles to the state of California on the condition that they be preserved for “public use, resort and recreation [and] be held inalienable for all time.”⁷ This marked the first time in American history that a scenic/wilderness area had been protected from economic development. It also marks the *de facto* beginning of the national park system and served as the inspiration for the nation’s first official national park, the Yellowstone National Park, which was created in 1872 as well as the Adirondack Forest Preserve, which was established in 1883.

This historic land grant represented a major departure from the widespread economic exploitation of the nation’s and California’s natural resources during the 19th century. It reflected Yosemite’s rapid emergence as a major state symbol and national cultural icon only a few years after it was “discovered” in 1851. Frederick Olmsted, the designer of Central Park, described Yosemite as “the greatest glory of nature... the union of the deepest sublimity with the deepest beauty...” Ralph Waldo Emerson opined: “This valley is the only place that comes up the brag about it and exceeds it.”⁸ Viewing the valley from Inspiration Point another visitor described it as similar to “the interior of some stupendous roofless cathedral.”⁹

Two decades later, in 1884, a federal district court in Northern California issued what may be the nation’s first and clearly its first important, broadly effective pro-environmental judicial ruling. It banned the dumping of mining debris into the rivers flowing from the Sierra. This decision ended hydraulic mining and shut down much the state’s important gold mining industry.

By 1890, three of the nation’s four national parks were located in the state of California. These three parks were established primarily in order to protect the state’s ancient groves of sequoias. They represented among the nation’s first effort to preserve and protect an endangered species.

Thus even before the Progressive Era, which is generally regarded as the beginning of American environmental regulation, important pollution and land use controls had been adopted in California. Although each these regulatory policies were formally made by the federal government, they were strongly supported by interests within the state. The federal legislation that protected the Yosemite Valley was introduced by one of the state’s senators, the plaintiffs in the federal court decision that banned hydraulic gold mining represented the interests of California farmers, and Californians were active in lobbying for the expansion of the national park system in the state.

These three examples illustrate the deep roots of environmental policy innovation and regulatory policy leadership in California. During the 19th century, in no other state were as many acres of wilderness or scenic beauty protected from development. The only forests in the United States that were protected other than California’s sequoias were in the Adirondacks in New York State. Moreover, in contrast to Yosemite, there were no restrictions on commercial development around Niagara Falls, which was the nation’s most well-known and popular “natural” tourist attraction during the 19th century. During the late 19th century, a few eastern

⁷ Michael Cohen, *The History of the Sierra Club* (San Francisco: Sierra Club Books, 1983, p. 3

⁸ Kevin Starr, *Americans and the California Dream, 1850-1915*, (New York: Oxford University Press, 1973) p. 182

⁹ John Sears *Sacred Places: American Tourist Attractions in the Nineteenth Century*, (New York: Oxford University Press, 1989) p. 122

cities had enacted pollution control ordinances. But none of them was as economically and environmentally significant as the 1884 federal court decision that effectively shut down gold mining – a highly profitable industry that had literally created the state of California.

The Attractiveness of the Natural Environment

The most appealing aspect of the state's natural environment may well be its weather, which is arguably the best in the United States. In 1804, one of the first Americans to visit the area wrote: "The climate of California generally is dry and temperate, and remarkably healthy."¹⁰ In the coastal areas where most of its population lives winters are relatively mild. There is much sunshine and little rain in southern California and it is possible to swim in the ocean throughout the year. Northern California is cooler and less sunny, but its Mediterranean climate also means that it is dry for much of the year. "California's arbitrarily conceived boundaries outline the only area of winter rain and summer drought in North America."¹¹ Survey data reveals that most Americans (mistakenly) believe that those who live in California are happier because of the state's benign climate.¹²

California also has an unusually long and beautiful coastline. The northern half of its 1,100 mile border on the Pacific Ocean contains much spectacular scenery while the southern half features several large beaches. One of the earliest western visitors to the state wrote: "On no other coast that I know shall you enjoy, in calm, sunny weather such a spectacle of Ocean's greatness, such beauty of changing colour, or such a degree of thunder in the sound." William Reilly, the president of the Conservation Foundation, writes: "One has only to stand at the continent's western edge, confronting the Pacific Ocean from the California coast, to understand the fascination so many people have for this memorable meeting place of land and water... the greatest of their state's natural treasures."¹³ Significantly, the vast majority of Californians have always lived within 30 miles of the coast and the state's three major cities, San Francisco, Los Angeles, and San Diego border the Pacific Ocean.

The state's forests along the western slopes of the Sierra in the northern and central parts of the state contain the *Sequoia gigantea* redwoods. They are not only the largest and oldest trees in the United States, but are the largest and oldest living species on the planet. These trees have long been regarded as national treasures. Following their "discovery" in 1852, what appeared particularly noteworthy about them was their longevity: several were reported to be the most ancient living entities on the planet – up to 4000 years old. Students of the Bible and ancient history enthused that they had existed at the time of Moses, King Solomon, Homer, and Alexander the Great. An eastern journalist wrote that "They [the Sequoias] began with our Modern Civilization. They were just sprouting when the Star of Bethlehem rose..." while a correspondent with the London *Times* calculated that one tree had reached maturity "when as yet

¹⁰ Gerald Nash, *State Government and Economic Development* (New York: Arno Press, 1979) p.2

¹¹ James Parsons, "The Uniqueness of California," *American Quarterly* Vol. 7 No 1 (Spring 1955) p. , 45

¹² Cass Sunstein, *Conspiracy Theories and Other Dangerous Ideas*, (New York: Simon and Schuster, 2004) p. 71-72

¹³ William Reilly, "Preface" in *Protecting the Golden Shore: Lessons from the California Coastal Commissions* Robert Healy, et al. eds, (Washington DC: The Conservation Foundation, 1978) p. xi

Adam lived in the Garden of Eden.”¹⁴ For both Americans and Europeans, they were among “among the natural wonders of the world...cathedrals of nature: cool, silent, the products of a profound historicity.”¹⁵

These examples do not exhaust the attractiveness of the state’s natural environment, which also includes the San Francisco Bay, the unusual granite formations, rivers and lakes of the Sierra Nevada Mountains that extend four hundred miles across virtually the whole eastern boundary of the state, and the deserts in southern California. California features the highest and lowest elevations and contains the largest acreage of both federal and state parks in the continental United States. California’s natural environment is one of the most - if not the most-attractive of any state in the continental United States.

The Vulnerability of the Natural Environment

But the fact that the state has an unusually attractive natural environment cannot by itself explain its long history of environmental regulatory leadership and innovation. After all, other states also have many attractive geographical features. What makes California especially distinctive has been the extent to which the economic opportunities created by its natural environment led to its rapid economic and population growth. Much of the state’s historic wealth was due to its “natural blessing of physical geography,” which included large deposits of gold, silver and oil as well as abundant forests, fisheries and fertile farmlands, along with its geographic gateway to the Pacific.¹⁶ (While the sources of its wealth have since diversified, it remains the largest agricultural producer and the third largest oil producer in the United States.)

California was the first western state to acquire statehood. It did so by a considerable temporal margin: California was admitted to the Union in 1850 – nine years earlier than Oregon, sixteen years before Nevada, and twenty-six years before Colorado. Why did California achieve statehood so rapidly? Why did only two years elapse from its being acquired by the United States following the Mexican War and its admission to the Union? Why did it spend less time as a territory than any other state in the history of the United States?

The answer is a simple one: due to the discovery of gold in 1848, California became more populated and richer than any other western state (a status which it continues to hold). The first two years of the “gold rush” brought upwards of 150,000 people to California from other states and around the world. Within four years its population had increased by 2,500 percent and San Francisco became the largest and most important city west of the Mississippi.

However, the state’s significant economic and population growth came at a price: it often undermined the beauty and quality of the state’s natural environment. Throughout the state’s history powerful commercial interests – beginning with the gold mining and timber companies of the 19th century and continuing on through the automotive firms and petroleum producers of the mid 20th century and the coastal and bay development firms of the later part of the century - have severely damaged the attractiveness of the state’s natural environment.

For example:

- By 1909, California led the United States in oil production. More than a thousand oil wells had been drilled within the city limits of Los Angeles and the region contained

¹⁴ Jared Farmer, *Trees in Paradise: A California History* (New York: W.W. Norton & Company, 2013) p. 20, 18

¹⁵ Kevin Starr *Americans and the California Dream, 1850-1915* (New York: Oxford University Press, 1973) p. 174

¹⁶ Richard Walker, “California’s Road to Riches: Natural Resources and Regional Capitalism: 1848 – 1940” *Annals of the Association of American Geographers* Vol. 91, no. 1 2002 p, 177

more than 100 offshore oil wells. Many of the beaches in southern California became filled with derricks, drilling piers, fences, and pipes, and fouled by oil spills. Beachgoers were often forced to walk through a maze of unsightly, noisy and foul smelling drilling equipment. 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 often caught fire and there were frequent explosions of natural gas.

- By 1900, the San Francisco Bay had become a “virtual cesspool” due to the unrestricted discharges of industrial effluents, many of which were toxic, directly into it as well as into the rivers that flowed into it.¹⁷ After the East Bay began to develop in the 20th century, increased discharges of municipal waste further deteriorated the bay’s water quality. By 1960, nearly a third of the Bay had disappeared due to reclamation and landfill caused by the construction of railways, docks, piers, shipyards, airports, and increasingly housing – expansions that were facilitated by an important geographical feature, namely the Bay’s relatively shallow shoreline which lowered the costs of filling it in.
- Between 1890 and 1910, one quarter of all the mature sequoias in California were harvested. The logging of redwoods in the northern part of the state, which were on privately owned lands, continued well into the 20th century.
- While California’s state constitution legally guaranteed public access, by the 1960s only one-fifth of the coast was available for public use. “Long a symbol of California’s gentle climate, clear skies, and pristine beauty, the coastline was vanishing before an encroaching frontier of development.”¹⁸
- The 1969 oil spill off Santa Barbara was the largest offshore oil spill in the United States to date. By the time the leak from the well, located on federal “land” six miles off-shore, was finally sealed, it had deposited between two and three million gallons of oil in the Santa Barbara channel. This spill impacted eight hundred square miles of ocean and coated more than thirty-five miles of coastline with deposits of oil up to six inches thick.

Some of these examples of environmental degradation are not distinctive or unusual in the United States through the 1960s. Oil development often led to a deterioration of environmental quality in both urban areas and along the coastlines, many bays and rivers adjacent to urban areas in the United States became highly polluted, other cities expanded by filling in their bays, and many coastal areas along the southern and eastern borders of the United States became publically inaccessible.

However California experienced two unusually negative impacts of economic activity on environmental quality: they were the results of hydraulic gold mining in the Sierra during the 19th century and industry and the large number of automobiles in Los Angeles during the 20th. The former adversely affected water quality in northern California and the latter air quality in southern California. Significantly, in both cases, natural geographic features exacerbated the negative externalities of rapid economic and population growth: the debris filled rivers of the Sierra flowed into a natural floodplain that contained several cities and towns as well as fertile farmlands, while the topography of Los Angeles basin prevented the dispersal of the extensive air pollution generated within it. Each of these deserves extended discussion.

¹⁷ Richard Walker, *The Country in the City: The Greening of the San Francisco Bay Area* (Seattle: University of Washington Press, 2007) p. 112

¹⁸ Jared Orsi, “Restoring the Common to the Goose: Citizen Activism and the Protection of the California Coastline, 1969 -1982,” *Southern California Quarterly* Vol. 78. No. 3 (Fall 1996) pp. 258-9

Hydrologic Mining in the Sierra

For all the romance surrounding the “forty-niners,” within a few years virtually all the gold flakes that were easily accessible by panning in rivers and streams had become exhausted. In the spring of 1852, a miner came up with an alternative strategy. He had been breaking down a gravel bank that contained gold with a pick and then shoveling the gravel into a sluice for washing. It struck him that his efforts would be more efficient if he connected a hose to the water ditch on the hill above him. This would enable the force of the water from the hose to wash more gravel into his sluice, which he could then loosen with hand tools. This technique spread rapidly. The following year, a tinsmith developed a tapered nozzle of sheet iron that could be affixed to the canvas hose. This enabled a concentrated strong stream of water to be directed at the gravel, thus significantly facilitating its dislodgement.

The stage was now set for hydraulic mining – a technology that would radically transform both the mining industry as well as California’s physical environment. It extracted gold buried in mountains and hills by the use of high-pressure water cannons. These “iron behemoths . . . resembled cannons, weighted nearly a ton, and could wash away hillsides, meadows, stands of timber, and even mountains in their entirety.”¹⁹ While hydraulic mining had been used by the Romans, its efficiency and effectiveness was considerably enhanced by new technologies developed and fabricated in foundries in Marysville and Sacramento. One innovation tripled the amount of water pressure that could be released, while another developed an iron monitor with a six to ten inch bore. The latter, labeled the “Little Giant,” released a concentrated stream of water that could tear open a hillside hundreds of feet away.

The impact of this technology was extraordinary:

A large hydraulic mine was an awesome sight. From a water ditch above the mine, large sheet iron pipes, 11 to 22 inches in diameter, dropped 400 to 500 feet to giant cast-iron nozzles or monitors. . . . Shooting from the monitors in 6 to 8 inch streams, the roaring shafts of water could be turned against an auriferous bank with great effect from a distance of several hundred feet . . . Gravel, boulders, and dirt melted away before the jet and were carried off in a continual flood. The debris and water then catapulted down the main shaft. . . . At the bottom of the shaft it flowed into an enormous sluice . . . a giant descendent of the device used by the forty-niner.²⁰

A contemporary observer noted that the water was “worried and rumbled and beaten into foam until one might easily believe that it comes out with not merely the force of gravity, but also with a wicked, vicious, unutterable indignation.” He added that huge rocks “fly like chaff when struck by the stream of water. . . . [although] the actual work of tearing down the cliff is hard to see, for these is a cloud of foam hanging over the spot and an incessant roar.”²¹

Hydraulic mining required a secure, predictable, and abundant supply of water: even an efficient mining operation required more than 200,000,000 parts of water to recover one part of gold. As the *San Francisco Bulletin* observed “abundance of water is essential to profitable

¹⁹ Norris Hundley Jr. *The Great Thirst Californians and Water: A History*, (Berkeley: University of California Press, 2011) p. 77

²⁰ Robert Kelley, “Forgotten Giant: The Hydraulic Gold Mining Industry in California,” *Pacific Historical Review* Vol. 23 No. 4 (November, 1954), p.354

²¹ Marilyn Ziebarth, “California’s First Environmental Battle,” *California History* vol. 63. No 4 (Fall 1984) p.276

mining.”²² This led to the state’s first large engineering project, namely the construction of an expensive and elaborate network of dams, reservoirs, canals, aqueducts, pipes, nozzles, tunnels, and sluices. Several corporations specialized in the construction of large ditch systems in order to meet the demand for water by the mining operations in the northern Sierra Nevada. One such firm, the Eureka Lake and Yuba Canal Company created 700 miles of miles of ditches one of which was fort-five miles long. During the winter and extending into several months of the dry season, this firm supplied nearly 7 million cubic feet of water per day to the mines located along its ditches. Other mining companies developed their own systems for meeting their considerable water requirements.

The North Bloomfield mine built over 150 miles of ditches, dams, and associated reservoirs to supply its large mining operations, which required a hundred million gallons of water a day. A mine at Smartsville constructed over 110 miles of ditches. Another mining operation built four reservoirs that supplied water through 100 miles of ditches, flumes and pipes to sixteen hydraulic spraying machines. These sprayed over 40 million gallons of water per day – three times the amount used by the city of San Francisco each day.²³

By the mid-1880s, the largest reservoirs in California covered hundreds of acres and held more than 7 million cubic feet of water; some dams were more than eighty feet high. All told, mining companies built more than 6,000 miles of canals, pipelines and ditches to carry water from the reservoirs where it was collected and stored to the mines where it was then sprayed on the mountains and hillsides. One flume and aqueduct built in northern California was 70 miles long and took a year to construct. Waterpower was also used to generate electricity for the mines. During the 19th century, hydraulic mining was the major user of water in the state.

Although hydraulic mining required considerable capital investment, it was also highly profitable. By the mid-1880s, mining companies had produced \$300 million of gold for investments of \$100 million. “The yearly output of California’s mines averaged \$10 million... making mining the most important industry west of the Rocky Mountains in the 1870s and early 1880s.”²⁴ At its peak in the 1880s, the mining industry employed 20,000 workers and the three counties in the northern Sierra contained more than forty thousand people. So profitable was hydraulic mining that a mine in Butte County stopped its production only once in twelve years – and that was for the funeral of President James Garfield.

But hydraulic mining not only transformed California’s natural environment: it also deformed it. 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.”²⁵ John Muir wrote, “the hills have been cut and scalped and every gorge and gulch and valley have been failing torn to pieces and disemboweled, expressing a fierce and desperate energy hard to understand.”²⁶ A survey of the state’s natural resources published in 1868 reported:

It is impossible to conceive of anything more desolate, more literally forbidding, than a region which has been subjected to hydraulic mining. . . . The whole vista is one of extreme desolation and ruin. Certainly by no other means does man so completely change the face of nature . . . Hills melt away and disappear under its influence. . . whole valleys are filled with clear-washed boulders of quartz. The desolation which

²² Quoted in Douglas Littlefield, *Western Historical Quarterly* October, 1983, p. 418

²³ Hundley p. 77-78

²⁴ Marilyn Ziebarth, “California’s First Environmental Battle,” *California Historical Society* (Fall, 1984) p. 276

²⁵ Kevin Starr, *California: A History* (New York: Modern Library, 2007), p. 89-90

²⁶ Quoted in Andrew Isenberg, *Mining California: An Ecological History* (New York: Hill and Wang, 2005) p. 41

remains . . . is remediless and appalling.²⁷

Water cannons created craters in the Sierra Foothills, hilltops disappeared and whole mountains were washed away. By 1885, the amount of debris deposited in the ravines of the Sierra was more than three times the amount excavated for the Panama Canal.

The debris and slit from mining operations transformed the river environments of the Sierra and the Sacramento Valley. An estimated 1.3 billion cubic yards of debris were dumped into tributaries of the Sacramento River. River bottoms became gradually filled with silt, which steadily raised their water levels. By the early 1880s, some rivers had become so filled with sediment and debris that they had essentially disappeared, while others flowed far away from their original course. For example, the Bear River, which in 1851 had been between 150 and 200 feet wide and between 15 and 20 feet deep - was essentially obliterated: parts of its bed rose nearly 100 feet. The twenty-five feet of hydraulic mining sediment deposited in Yuba River shifted its flow a mile away from its original course.

The raised riverbeds of the Yuba, Bear, Feather, Merced, and American rivers severely exacerbated the impact of the annual spring flooding of the central flatlands of the Sacramento Valley. Even without the debris produced by hydraulic mining, the Sacramento River's channels could not contain the massive amounts of water that periodically flowed from snowmelt in the northern Sierra Nevada, when the river's flow increased from 5,000 to 600,000 cubic feet a second. But by the 1870s, the drainage system of the lower Sacramento Valley contained so much mining debris that it was unable to absorb even normal levels of river volume. As a result, the Sacramento River and its tributaries became "sources of terror and widespread destruction... Increasingly devastating floods became almost annual occurrences."²⁸

These floods had an especially harmful impact on the 45,000 acres under cultivation in Sutter County, which was located in the middle of the Sacramento Valley between the Feather and Sacramento Rivers. Farms in this area produced considerable quantities of wheat, barley, and cheese. More than 30,000 peach, pear, plum and cherry trees had been planted, while 160,000 grape vines annually produced 26,000 gallons of wine. But tens of thousands of acres of the most highly productive farmland became covered by massive amounts of a watery mixture of sand and gravel, making them into "barren wastelands" on which nothing would grow. "Orchids, grain fields, and houses were buried out of sight."²⁹ The territory south of the Yuba River became a "desolate waste... a thick sediment of sand destroying all hopes of vegetation for some time to come."³⁰

The lands that were literally disappearing were among the most rich and fertile in the valley. Farms were "progressively buried by mining sands, so that a wide bleak expanse of desert presented itself, where formally there had been rich farms, orchids and pasture lands."³¹ Moreover, the sediment from the mines created a chemical mixture that made the water unfit for irrigation, as well as poisonous to animals. In sum, a once fertile and productive agricultural region was being progressively destroyed.

Compounding the deterioration of water quality was the use of mercury, a toxic mineral that was mined and processed near San Jose. It was added to the water in sluices because it

²⁷ Randall Rohe, "Mining's Impact on the Land," in *Green Versus Gold: Sources in California's Environmental History* Carolyn Merchant, ed. (Washington DC: Island Press, 1998) p. 130

²⁸ Rohe, p. 130,

²⁹ Robert Kelley, "The Mining Controversy in the Sacramento Valley," *Pacific Historical Review* Vol. 25, no 4 (November 1956) p. 332

³⁰ Robert Kelley, *Battling the Inland Sea* (Berkeley: University of California Press, 1989) p. 72

³¹ *Ibid*, 107

adhered to gold and thus facilitated its extraction. During the 1860s mercury production was the second largest industry in California, after gold mining. In 1874, mining firms used approximately 1.4 million pounds of mercury. While much of it was recovered, along with the gold, a significant percentage remained in streams and river. Some mercury also vaporized, where it returned to the earth in rain and snow.

The debris from hydraulic mining also exacerbated the flooding of the cities of Marysville, Sacramento, and other river towns in the Sacramento Valley. While urban residents, like many farmers, built miles and miles of levies to protect their lands and buildings, their construction was very expensive and they frequently broke or were overrun. For example, after river bottoms became filled with silt, causing water levels to steadily rise, the city of Marysville constructed what was essentially a walled city to protect its residents from the Yuba and Feather rivers, which were now flowing 20 feet above street level.

Nonetheless in 1875, the Yuba River overran Marysville's levees and the town was completely flooded. It took several months for the city's residents to clear the mud that had been deposited. The increasing costs of levee construction forced local governments to continually raise taxes, which in turn led to a decline in property values. By the mid-1870s, water from the American and Sacramento rivers contained so much silt from upstream mining operations that it was unfit to drink, while city hydrants produced a mixture of mud and water.

Mining also damaged California's forests. Not only did the construction and frequent repair of flumes, sluices, and dams consume large amounts of timber, but the reservoirs that supplied the mines with water often submerged whole forests. The clear cutting of forests to supply the considerable quantities of timber necessary for hydraulic mining also increased erosion – and the amount of debris washed into streams. The debris covering the beds of the Sacramento River and its tributaries also destroyed the spawning grounds of millions of Pacific salmon. Prior to the Gold Rush, the Native Americans of the Central Valley had harvested nine million pounds of salmon or approximately 650,000 fish each year. By the early 1870s salmon had disappeared from the Feather, Yuba, and American rivers. In 1878 a government body reported that hydraulic mining debris had destroyed fully half the salmon habitat in the state.³²

Air Pollution in Los Angeles

The deterioration of air quality began early in the history of Los Angeles. In 1903, an editorial in the *Los Angeles Herald* noted that during the previous week, "Darkness spread over streets... smoke fumes... obscured the sun and drove out daylight... The smoke make nuisance is growing in volume and density."³³ While it was certainly not unique among American cities in facing growing problems with air pollution, southern California did rapidly develop the worst air quality in the United States. The region's deterioration of air quality was particularly pronounced for three reasons.

The first had to do with its distinctive topography. Los Angeles lies at the bottom of a huge - 1,600 square mile - natural box, three sides of which are formed by mountains. The fourth side of the "box" faces the Pacific Ocean. Hot ocean air moves inland from the Pacific, while the

³² Isenberg, p. 46

³³ Quoted in James Krier and Edmund Ursin, *Pollution and Policy: A Case Essay on California and Federal Experience with Motor Vehicle Air Pollution 1940- 1975* (Berkeley: University of California Press, 1977) p. 45

lower levels of the air are cooled by cold coastal currents. Because the lower layers of cooler air are heavier, they remain close to the ground. Sunlight, which Los Angeles has in abundance, then combines with the cooler air to create ground level smog or haze. It remains trapped in the Los Angeles basin by both the warm air above it and the mountains that surround it. Moreover, Los Angeles, unlike many other coastal cities, has relatively weak wind currents, and thus little of its smog or haze is blown away.

These topographical features means that air quality and visibility in Los Angeles would be adversely affected even if the region was relatively uninhabited. In 1542, Juan Rodriguez Cabrillo, the Spanish explorer who gave the state its name, observed that the smoke from Native American campfires rose only a few hundred feet and then spread out at the base of the mountains in the east, obscuring their visibility. He went on to label the San Pedro Bay, (located in the Los Angeles area), “La Bahia de Los Fumos” (the Bay of Smokes). Reports from other explorers and early settlers also noted that the basin in which Los Angeles is now located frequently experienced a “natural tropical haze” and was often “so filled with smoke as to confine the vision to a small circumference.”³⁴

The second factor exacerbating the deterioration in air quality was its rapid population and industrial growth. Between 1920 and 1940 the population of the Country of Los Angeles grew from under one million to 2.7 million – a rate of growth exceeding that of any metropolitan area in the United States.³⁵ Third, during the Second World War the city became a major center of military production, employing nearly half a million factory workers.³⁶ Many of the heavy industries involved in war production, such as rubber, nonferrous metals, petroleum machinery and chemicals, were major sources of air pollution.

In 1939, aviation authorities described the haze in downtown Los Angeles, Pasadena and Altadena as a “serious menace to air flying.”³⁷ By the 1940s a pale of haze obscured Catalina Island off the coast of Los Angeles as well as the mountains to the east. There were often “days when the low-lying smoke and fume bank engulfed the city and environs and sent cursing citizens, coughing and crying.” On September 8, 1943, the city experienced a “daylight dim-out when dense smog settled over the areas. . . . thousands of eyes smarted, many wept, sneezed and coughed.”³⁸ The citizens panicked. Blinded drivers moved from side to side to avoid collisions, while mothers took their frightened children into hotel and office lobbies in order to shelter them. The paint on some cars became blistered and black, greasy residues appeared on the curtains and furniture of hotels and restaurants. Rumors spread that the city had been attacked by the Japanese. A decade later the region experienced a “five day siege of smog.”

While air quality in many American cities steadily declined during the 1950s, the deterioration of air quality was particularly striking and visible in Los Angeles. In addition to its unusual topography, three other interrelated factors were at work. The first was its unusual population growth. In just six years, between 1950 and 1956, the county grew by 1.2 million people. By the mid-1950s, the county had five million inhabitants - more than in all but eight American states. Second, its industry was expanding at a much higher rate than in the rest of the United States. In 1953, new construction in Los Angeles exceeded the combined levels of seven

³⁴ Quoted in Krier and Ursin, p.45

³⁵ Krier and Ursin p. 44

³⁶ Marvin Brienens, “Smog Comes to Los Angeles” *Southern California Quarterly* Vol. 58 No 4, (Winter 1976), pp. 517-518

³⁷ Sarah Eklind, *How Politics Shape Federal Policy: Business, Power, & the Environment in Twentieth-Century Los Angeles*, (Chapel Hill: University of North Carolina Press, 2011) p. 56

³⁸ Krier and Ursen p. 55

major American cities. The third had to do with the uniquely important role of cars in Los Angeles.

Los Angelinos' unusual reliance on motor vehicle transportation reflected the city's distinctive pattern of urban development as a dispersed series of communities. "The city led the national trend toward decentralization because its spatial expansion was less physically restricted than in other cities. For example, between March of 1923 and March 1924, developers subdivided 84,000 new lots and erected 125,000 homes.³⁹ Consequently, Los Angeles became dominated by "sprawling low-density single family homes, monoculture communities, with its long commutes and the addiction to gas."⁴⁰

"The place of the automobile in the transportation problem of Los Angeles is far more important than in the cities of the East."⁴¹ As early as 1915, Los Angeles had one car for every eight residents, compared with the national mean of one vehicle for every forty-three citizens. Automotive registration in Los Angeles County increased nearly fourfold between 1918 and 1923, from 110,000 to 430,000. By 1925 every other person of Los Angeles owned a vehicle, while the rest of the United States had only one car for every six people. Moreover the residents of Los Angeles used their cars more frequently: in 1924, nearly half of those who entered the central business district drove there.

Automobile registration more than doubled in the decade following the Second World War. By 1956, nearly three million cars were registered in Los Angeles County. This represented roughly 5 per cent of all motor vehicles registered in the United States – making the county into "the greatest concentration of motor vehicles in the world."⁴² These cars also produced pollutants that severely exacerbated the city's air pollution problems.

It does not necessarily follow that because the state's attractive natural environment has been continually threatened or seriously damaged, regulations would have been adopted to prevent this from continuing. At very critical junctures different decisions policy could have been made. The debris flowing from the foothills of Sierra could have continued until all the gold was exhausted, the redwoods could have been cut down for lumber, the air in the Los Angeles area could have continued to deteriorate, the beaches in southern California could have been used for oil drilling instead of recreation, public access to and use of the coast could have been increasingly restricted and much of the San Francisco Bay filled in. These outcomes, however, did not occur, because both citizen and business interests effectively mobilized to put California on a "greener" course.

Environmental Activism in California

"Green" civic activism in California has a long history. It began shortly after California became a state when "a group of California gentlemen" along with prominent visitors to the state decided to protect the Yosemite Valley, which was threatened by commercial development. Horace Greeley, editor of the *New York Herald Tribune*, had visited the valley in 1859. After

³⁹ Ibid, p.107

⁴⁰ Quoted in Wyn Grant, *Autos, Smog and Pollution Control* (Aldershot: Edward Elgar, 1995) p. 40

⁴¹ Quoted in Bottles, p. 92. The following statistics in this paragraph are from Bottles, p. 92-3 and 107

⁴² Chip Jacobs and William Kelly, *Smogtown: The Lung-Burning History of Pollution in Los Angeles* (New York: The Overlook Press, 2008) p. 162

observing the giant sequoias that surrounded it, he wrote, “If the village of Mariposa, the county or the state of California does not immediately provide for the safety of these trees, I shall deeply deplore [it].” He went on to predict that “I am sure they will be more prized and treasured a thousand years hence.” John Muir, who became the nation’s most well-known and influential spokesman for wilderness protection during the later part of the 19th century and into the 20th, came to California in 1868. He subsequently played a leading role in the public campaign to protect Yosemite and the adjacent redwoods and was the first president of the Sierra Club. Founded in 1892, it was the nation’s second oldest environmental organization (the first was the Appalachian Mountain Club based in Boston).

The Sierra Club was only the first in a long list of civic and environmental organizations that have been actively engaged in environmental politics in California, and beginning in the 1960s, at the national level as well. These organizations or in some cases coalitions of organizations have ranged from The Sempervirens Club and the Save-the-Redwoods League, which were formed during the first decades of the 20th century, to Save the San Francisco Bay Alliance, the Coastal Alliance, and Friends of the Earth, which were established during the 1960s and 1970s.

How can we account for the extent of citizen activism in support of environmental protection in California?

It is not the case that California has attracted people with stronger green political preferences. In fact, the very notion of “green” political preferences only dates from the rise of modern environmental activism during the 1960s, while influential Californians have been engaged in supporting conservation policies since the middle decades of the 19th century. But even during the last half century, there is no evidence that who chose to move to California had any stronger environmental preferences than those who moved to or remained in other states. Nor did the large number of foreign immigrants to California typically bring with them green policy preferences.

Historically, most of those who have emigrated to California – that state has always had a disproportionate number of residents who were born elsewhere – have been primarily attracted by the state’s significant economic opportunities. That was certainly true for the “forty-niners” who came to look for gold, the impoverished farm workers who moved to the state in the 1930s, the hundreds of thousands who came to work in defense factories during the 1940s or for the state’s numerous immigrants from China, Japan, and more recently from Mexico.

Nonetheless, there is no question that the state’s attractive natural environment has also played an important role in its rapid population growth. In an essay ‘the uniqueness of California,’ Parsons writes that, “The state’s unparalleled population growth, to an extraordinary degree an urban phenomena, can be largely explained in terms of the lure of the climate, of mild winters coupled with relatively cool, low rainfall and abundant sunshine.”⁴³

Once can see this most clearly in the substantial emigration to southern California during the first half of the 20th century. Many were attracted by its sunny climate and access to beaches in which one could swim all year around – natural amenities that became identified with the southern California’s “life-style.” Such people were likely to support beach access and controls on automobile pollution and oppose coastal oil drilling not because they cared about the “environment” per se, but because they wanted to maintain the amenity values that had attracted them to California in the first place.

For example, a major attraction of Santa Barbara, to which a large number of affluent people moved during the 1930s, was its coastline. It has been described as “one of the most beautiful in

⁴³ Parsons p. 45

the country,” with “a narrow plain hugging the shore, merging into rolling hills and rising to a mountain backdrop.” The region subsequently developed a “worldwide reputation for beauty and pleasant living.”⁴⁴ Its residents, many of whom were conservative Republicans, opposed oil drilling in the Santa Barbara channel in order to protect the scenic ocean views from their expensive hillside homes.

More recently, for those geographically mobile relatively affluent and educated individuals, the state’s attractive natural environment may well have played a significant role in their decision to move to California. It arguably contributed to the academic distinction of California’s universities and the growth of the high-technology firms in northern California. For those in a position to choose where to work or to begin or expand a company, a self-selection process may be at work: the state is likely to have disproportionately attracted individuals who place a relatively high value on the “outdoor” quality of life that California’s environmental quality makes possible.

But in the final analysis what matters is not so much *why* people decided to come to California or chose to stay there – after all many were born in the state - but what at least some came to value *after or while* they were living in the state, or in some cases visiting it. An important part of California’s identity, appeal, or promise - or its version of the “American dream” and what makes California “a land apart” - has to do with the attractiveness of its natural environment. *Accordingly, living in California became associated with the expectation of being able to enjoy, experience, or benefit from a quality of life that included a wide range of activities associated with an outdoor lifestyle. This in turn created an influential middle and upper-class constituency that came to place a high value on environmental quality and had a material stake in protecting or restoring the attractiveness of the state’s natural environment.*

Muir did not come to work in Yosemite because he already cared about wilderness protection; he embraced the cause of wilderness protection because (or after) he had personally experienced the wondrous beauty of Yosemite and wanted to protect it. Likewise, William Kent, a wealthy railway executive, who is best known for purchasing and donating Muir Woods to the federal government to protect it became “converted to the Bay Area conservationist ethics,” joining the Sierra Club following his move to Marin County from Chicago.⁴⁵

The middle and upper class individuals who played leading roles in the political campaigns to save Yosemite, the redwoods, the beaches of southern California, the San Francisco Bay, California’s coast, or air quality in Los Angeles were responding to highly visible threats to natural amenities they had come to value *because* of where they were living. *They did not come to California to protect the environment; they became engaged in the cause of environmental protection because they lived in California.*

For example, the Sierra Club was established by a group of middle-class and upper-class individuals - several associated with the University of California, Berkeley - who lived in the Bay Area and enjoyed camping and hiking in nearby Yosemite; one of its most popular activities was a month-long annual camping trip to Yosemite. Accordingly, an important political priority of the Club was to protect and preserve the forests and other attractive natural features of the Sierra Nevada Mountains so they could continue to enjoy and experience them. The organization’s roughly 300 charter members “gave formal expression to a distinctively

⁴⁴ Malcolm Baldwin, “The Santa Barbara Oil Spill,” *University of Colorado Law Review Co.* Vol. 41, 1970, p. 38

⁴⁵ Richard Walker., *The Country in the City: The Greening of the San Francisco Bay Area* (Seattle: University of Washington Press, 2007 p. 25

California relationship to the outdoors,” one which reflected “a deep California hope: that a regional heritage could be defined and protected,” as well as enjoyed.⁴⁶

Likewise, the upper-class Sempervirens Club was established in 1900 to protect the Big Basin grove of redwoods in northern Santa Cruz Country, which were in immediate danger of being logged. Its wilderness protection campaign was supported by a broad coalition of Stanford University administrators and faculty, as well as other local residents, who enjoyed hiking, fishing and camping in the Santa Cruz Mountains. Their efforts were also backed by the 20,000-member California Game and Fishing Association – a predominately upper-class sporting organization.

For well over a century, San Francisco has been one of the most important “hearths of conservation and nature appreciation in the United States.”⁴⁷ The long-standing environmental activism of the Bay Area may well be linked to the unusual natural beauty of the region. This includes the Bay itself, Muir Woods, Mount Tamalpais, Stimson Beach, the northern coast of California, Yosemite, the mountains of the Sierra Nevada, and Lake Tahoe. Few if any major metropolitan areas in the United States are located so proximate to so many areas of scenic beauty.

The successful campaign to protect the San Francisco Bay was initiated by three Berkeley residents associated with the University of California who became alarmed when they learned that the city of Berkeley planned to double its size by expanding into the bay. In 1961, they formed the Save Our Bay Action Association. The grass-roots campaign for state legislation to protect the bay was able to draw upon the large network of Bay Area conservation organizations including the Sierra Club, which had 33,000 members in the Bay Area, and the Save the San Francisco Bay Association, which had more than 20,000 members. The public did not need to be told that it was worth saving: it was a highly visible and well appreciated natural feature of the Bay Area. It only needed to be convinced that it was endangered. The latter was also obvious: the public could readily see the damage being inflicted by several bay-fill projects.

Much environmental activism in southern California had similar local geographic roots. The harms and hazards due to the extensive oil drilling on the beaches in southern California generated strong public support to restrict the industry’s access to it. Governor C.C. Young described the 1928 legislation that restricted “pier drilling” as “a victory for the public in a long battle to protect the priceless California coast from private exploitation and ruin.”⁴⁸ The residents of the Los Angeles basin who became outraged by its highly visible air pollution during the 1940s and 1950s did so because they had a personal stake in improving the region’s air quality.

Among the most significant examples of citizen mobilization in California to protect its natural environment was the campaign to pass Proposition 20, the California Coastal Initiative. Organized by the Coastal Alliance, volunteers were able to collect the 400,000 signatures needed to place it on the November 1972 ballot in only two months. More than seven hundred organizations, including unions, students, teacher, surfers, and senior citizens along with all the state’s environmental organizations actively campaigned for a “yes” vote. While the proposition’s business opponents outspent its supported by more than 4 – 1, the initiative was approved by an 800,000-vote margin.

⁴⁶ Michael Cohen. *The History of the Sierra Club* (San Francisco: Sierra Club Books, 1988) p. 11

⁴⁷ Richard Walker p. 20

⁴⁸ Sarah Eklind, *How Local Politics Shape Federal Policy: Business, Power & The Environment in Twentieth Century Los Angeles* (Chapel Hill: University of North Carolina Press, 2011) 25

In addition to the extensive support it received from a wide range of organizations as well as the large number of volunteers who actively worked for it, the “Yes-on-20” campaign succeeded because it “appealed to millions of Californians’ imaginative pictures of what ‘life in California’ was about.”⁴⁹ It specifically focused on an issue about which Californians cared about, namely public access to their coast. The official “Yes” ballot statement dramatically emphasized the loss of both physical and visual access:

Our coast has been plundered by haphazard development and land speculators [who] bank their profits, post their “no trespassing signs” and leave. . . . The public has been denied access to hundreds of miles of beaches and publically owned tidelands. . . . Ocean vistas are walled off behind unsightly high-rise apartments and billboards. Increase public access to the coast ... VOTE YES.”⁵⁰

In this context, it is important to appreciate the political importance of the *highly visible threats* to California’s environmental quality that have frequently appeared throughout the state’s history. This visibility made it easier for citizens to become mobilized. Thus Californians could actually witness the destruction and defacement of the ancient groves of the Sequoias, the destructive impact of the debris filled rivers flowing from the Sierra, the deterioration of air quality in the Los Angeles basin, 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, the filling in of the San Francisco Bay etc. Nor did these developments happen gradually, which might have made them less politically salient. Most took place within a relatively short period of time.

Equally important, because California is geographically distinct from the rest of the United States, its environmental harms were self-contained. The state’s rivers both begin and end within its geographic borders and the air pollution it generates stays in California. Thus unlike many states in the east and Midwest, California cannot “export” its air or water emissions to neighboring states. This means that both the costs and benefits of environmental protection are internalized within the state. Accordingly, if its environment was to be protected, it was up to Californians to do so.

The Role of Business

However, had a unified business community opposed California’s important regulatory policy initiatives, far fewer of them would have been enacted. But typically the interests of business have been divided, with some firms or industries opposing more stringent standards and other supporting them. *The latter’s preferences and political impact have played a critical role in placing California on a “greener” growth trajectory – one in which environmental protection has often been seen as having commercial value - and thus contributing to rather than undermining the state’s economic development. In short, many “green” regulatory policies have yielded important business benefits.*

The state’s first major environmental conflict pitted two of the state’s most important industries against one another, namely the gold mining firms that wanted to continue to deposit debris in the rivers flowing from the Sierra and the farmers in the Sacramento River valley who wanted to protect their fertile land from being flooded and often poisoned. The latter were not

⁴⁹ William Duddleson, “How the Citizens of California Secured Their Coastal Management Program” in Healy, ed. al *Protecting the Golden Shore* (Washington DC: Conservation Foundation, 1978) p. 11

⁵⁰ Ibid p. 13

interested in environmental protection or improving water quality per se; they simply wanted to protect their property. But just as hydraulic gold mining had important negative environmental externalities, so did stopping it have important positive environmental externalities: it dramatically improved the quality of the rivers flowing from the Sierra. From this perspective, the farmers of the Sacramento Valley were among the state's earliest important business supporters of more stringent environmental regulations.

The 1864 legislation to protect Yosemite was introduced into Congress by California Senator John Conners at the suggestion of the state's representative of the Central American Steamship Company. It was supported by a business coalition of road-builders, railroads and steamship companies who anticipated that protecting Yosemite would increase tourism to California. After noting that the natural scenery of Switzerland had generated a major tourist industry and led to the creation of inns, railroads and carriage roads, Olmsted, who had strongly supported the legislation on aesthetic grounds, predicted that Yosemite would "prove an attraction of similar character and a similar source of wealth for the whole community."⁵¹

Following the completion of the transcontinental railroad in 1869, it was the Southern Pacific Railroad, (SP) the state's most politically powerful business firm, which became the most important business supporter of wilderness protection. Preserving the state's scenic wilderness would attract more visitors to California and thus increase the firm's passenger revenues from transcontinental travel.

During the 1880s Muir became personally angered by the destruction of the land surrounding his beloved Yosemite by sheep grazing and logging. He therefore launched a national campaign to persuade the federal government to designate the areas surrounding its earlier land grant as a national park. This effort faced strong opposition in Washington from cattlemen, sheepherders and lumbermen in California who would no longer enjoy unrestricted access to this commercially valuable land.

It largely succeeded because Muir received support from an unexpected source. After Collis Huntington had replaced Leland Stanford as president of the SP, the railroad instructed its lobbyists in Washington to support the proposal. Its' behind the scenes support proved decisive. Muir later recalled: "Even the soulless Southern Pacific R.R. Co, never counted on for anything good, helped notably in pushing the bill for this park through Congress."⁵² The legislation signed by President Harrison in 1890 banned sheep and lumbermen from fifteen hundred square miles of the Sierra.

The same 1890 legislation that created Yosemite National Park also created the Sequoia and the General Grant (now known as Kings Canyon) national parks, both protected the state's giant Sequoia trees. The SP strongly and effectively supported this legislation. In addition to hoping to attract more tourists to the state, the railroad wanted to protect the largest possible acreage of trees so that the mountain watershed in the Sierra would in turn protect the railroads' extensive downstream agricultural holdings in the Central Valley. "Throughout the post-Civil War US West, the transcontinental railroads functioned as the greatest advocates of national parks... For example, in September 1890 a congressional lobbyist for the SP drew the boundaries of Sequoia National Park," making them much larger than had been proposed in the initial legislation.⁵³

⁵¹ John Sears *Sacred Places: American Tourist Attractions in the Nineteenth Century* (New York: Oxford University Press, 1989) p. 130

⁵² Stephen Fox, *John Muir and His Legacy: The American Conservation Movement* (Boston: Little Brown and Company, 1981) p. 106

⁵³ Jared Farmer, *Trees in Paradise: A California History* (New York: W.W. Norton & Company, 2013) pp. 41-42

Subsequently Muir, who regarded the state of California as an inadequate steward of the land the federal government had given it in 1864, wanted the Yosemite Valley to become part of Yosemite National Park, and be managed by the federal government. This change in land management, which was supported by a wide array of state professional and citizen organizations because of the state's poor record of land management, required both state and federal approval. A critical role in securing state approval was played by the SP, which supported the legislation due to a personal relationship Muir had developed with its current head, the powerful financier E.W. Harriman of New York. A sudden switch of nine votes, engineered by the railroad, enabled the bill to pass the state legislature in 1905. Muir wrote to SP's chief lobbyist: "Many thanks for your Sacramento Yosemite Work."⁵⁴ Harriman also played a critical role in securing Congressional approval, and the land management change was signed into law by President Roosevelt in June 1906.

State Park Expansion

Unlike national parks, which were taken from land already owned by the federal government, state parks were developed on privately owned land. This meant that state funds were needed to acquire it. Such acquisitions also produced commercial benefits. In 1925 Duncan McDuffie, a prominent realtor and the chair of the committee on state parks for the Save-the-Redwood League wrote after a review of the state's five parks in 1925:

Next to our fertile soil, California's greatest single asset is the opportunity it offers for outdoor life. No industry except agriculture put as much money into circulation in California as do the hundreds of visitors who come here seeking health, recreation, pleasure, sport an out-of-door life generally. Yet gradually many of the attractions that have made the state famous are being destroyed

He concluded: "It would seem to be *sound business* for the state to see that its major opportunities for recreation and enjoyment of the out-of-door are left open for the use and enjoyment of both its citizens and its visitors."⁵⁵ (italics added) In 1927, a bond issue authorizing 6 million dollars of state funds, to be matched by an equal amount of privately generated funds, to be used to expand the state park system, was placed before the state's voters.

The campaign to ratify the state parks bond issue was supported by both civic and commercial interests. The 250 organizations that endorsed it included local chambers of commerce, the American Legion, the California Real Estate Association, tourist and travel associations, automobile clubs, as well as conservation, education and garden groups. During the last weeks of the campaign local chambers of commerce, utility companies, and the Boys Scouts and the Campfire Girls distributed approximately one million leaflets. Major oil firms as well as the California Farm Bureau Association sponsored radio announcements advocating a "yes" vote. On November 6, 1928, California's voters approved the California State Park Bond by a plurality of nearly three to one.

In 1936 Standard Oil decided to do an end-run around local opposition by sponsoring a state ballot initiative to legalize slant oil drilling into off shore deposits. Opposition to this policy initiative, known as the State Lands Act, from southern California was intense. Chambers of commerce from throughout southern California denounced the proposal, characterizing the ballot

⁵⁴ Fox p. 183.

⁵⁵ Joseph Engbeck Jr. *State Parks of California from 1964 to the present* (Portland: Graphic Arts Center, 1980) p.47

proposal as “vicious” and “imprudent,”- “ a medium for satisfying the private greed of certain large oil interests ...[and] a vehicle through which ruin and destruction will be carried through our beaches.”⁵⁶

But then the oil firms then received support from a surprising source, namely the California Parks Commission. The Commission agreed to support the initiative - provided that a share of state oil royalties were allocated to it. William Colby, a San Francisco mining lawyer who chaired the parks commission, promised that revenue sharing would “make future park bond issues unnecessary and will provide for the entire park system at no future expense to taxpayers.”⁵⁷ Testifying before the state legislature, he dramatically described the redwood groves and beaches that urgently needed protection but would be destroyed due to a lack of new funds. A business group, the Shoreland Planning Association (SPA), along with several civic park and beach groups, agreed to support the initiative provided that 30 percent of oil royalties went to parks and beaches.

Although the bond issue lost in Los Angeles, this rather unusual alliance triumphed at the state ballot box. Its revenue sharing provisions added roughly \$700,000 a year to the budget of the State Parks Commission, which permitted the Commission to increase the protection of both southern California beaches and northern redwood groves. In 1941, the state legislature increased the share of state oil royalties dedicated to beaches and parks from 30 to 70 percent. In 1954, after California regained control of the revenues from offshore oil drilling, additional funds for park development and administration became available. While the beach-oil pact was contentious, as many developers and civic groups in southern California continued to oppose oil drilling near the coasts, oil revenues played an important role in financing the expansion of California’s public beaches and parks.

The expansion of both the state and national park systems in California produced both public and commercial benefits. It provided the state’s citizens with increased opportunities to enjoy the state’s natural environment and at the same time helped draw tourists to the state. Significantly, both federal and state parks in California are visited more frequently than those in any other state.

Protecting Southern California

Beginning in the 1940s both business firms and civic leaders mobilized to protect air quality in Los Angeles, first from stationary sources and subsequently from motor vehicles. *The Los Angeles Times* under the leadership of its politically influential publisher, Norman Chandler played a leadership role in mobilizing public pressure to address the region’s pollution control problems. In 1948 Chandler, whose family had extensive investments in the region, told a group of oil industry executives: “*The Los Angeles Times* has entered the [anti-smog] campaign in the public interest with the avowed purpose, if possible, of finding all the sources of air pollution, and was committed to the position of going forward without fear or favor of its effect upon any industry.”⁵⁸ *The Times* followed up this commitment by publishing a lengthy series of articles on the city’s growing pollution problems.

⁵⁶ Eklind, p. 28

⁵⁷ Paul Sabin, *Crude Politics: The California Oil Market 1900-1940* (Berkeley: University of California Press, 2005) p. 95

⁵⁸ Quoted in George Gonzalez, “Urban Growth and the Politics of Air Pollution: The Establishment of California’s Automobile Emission Standards,” *Polity* Vol. 33 No. 2 (Winter, 2002) p. 223

Chandler's concerns about air quality in Los Angeles were shared by the city's real estate and tourism industries, which feared that the city's highly visible air pollution would make the region a less attractive place to move to or visit. While many of the city's residents had come to Los Angeles during the Second World War to work in defense factories, much of the growth of southern California in the interwar years was linked to its well-publicized promise of a more attractive and healthy lifestyle. "Residents came to the region looking for respite from sooty, industrial cities; for decades boosters promoted the region as a natural sanitarium for those suffering from tuberculosis and other respiratory diseases."⁵⁹ Dirty, unhealthy air would discourage new residents from coming to southern California, directly threatening the growth of southern California's most profitable industry, namely land development and indirectly the prosperity of its banks and retailers. "Central to the effort to regulate automobile emissions in California are business elites whose economic interests lie in rising property values and in expanding consumer base."⁶⁰

Subsequently, much of the prolonged political struggle over the region's and the state's regulation of automotive emissions pitted the Los Angeles business community against the nation's automotive firms. During the 1960s, California was the first state to adopt automotive emissions standards. When the federal government began to adopt its own vehicle emission standards, the automotive industry fought hard to have them preempt those of California. Congress supported California, in part on states' rights grounds. In 1967, California became the only state permitted by the federal government to have its own automotive emission standards. Within the state, the relative stringency of California's emission standards have been continually driven from pressures from legislators from the populous regions of smoggy southern California⁶¹

The campaign to remove oil rigs from both on and off shore was strongly supported by the Los Angeles business community, including the city's chambers of commerce and real estate organizations. The extensive oil drilling on the region's attractive coastline threatened both tourism and the commercial development and property values of shoreline communities. In essence, "two competing economies in the state clashed over the use of coastal resources. Was the Pacific coastline a site for the extraction of raw materials. . . . or a place of relaxation, recreation, and reality?"⁶² This conflict echoed the earlier one between the gold miners and the farmers over water flows from the Sierra: was the Sacramento Valley a site for the deposit of the debris from gold mining or for agriculture? In both cases, the commercial interests that eventually triumphed led to improvements in the state's environmental quality.

Conclusion and Contemporary Implications

This paper has sought to explain why California has adopted a wide range of relatively stringent and innovation environmental regulations. It does so by tracing the history of business and civic group engagement in environmental policy through the early 1970s. It demonstrates that California's practice of often adopting the most innovative, comprehensive and stringent

⁵⁹ Eklind, p. 8

⁶⁰ George Gonzalez, "Urban Growth and the Politics of Air Pollution: The Establishment of California's Automobile Emission Standards, *Polity* XXXV no. 2 Winter, 2002 p. 215

⁶¹ see Dorothy Thornton, et al, "Compliance costs, regulation, and environmental performance: controlling truck emissions in the US" *Regulation & Governance* (2008) 1, 1- 18

⁶² Paul Sabin, *Crude Politics: The California Oil Market 1900- 1940* (Berkeley: University of California Press, 2005) p. 56

environmental regulations in the United States has deep historical roots. And these in turn were shaped by *the state's geography that gave rise to the diversity of economic and civic interests that have often become politically mobilized in support of its wide ranging green policy initiatives.*

More specifically, it argues for the political importance of California's geography. The state's unusually attractive natural environment is a necessary condition for its distinctive green policies, but it is not a sufficient condition. What was also critical is the role of that geography, most importantly its abundant natural resources and climate, in contributing to the state's rapid economic and population growth. It was this growth that in turn harmed and threatened the attractiveness of that environment. This in turn led to strong civic support for regulations to protect or restore the state's environmental quality. But again, while this civic support has played an essential political role, it would not have been sufficient by itself: what has also been critical are the business interests that have benefited from and supported regulations aimed at keeping California "green."

The developments described in this paper created a path dependency that have helped shape the state's more recent environmental policy initiatives. The largely elite civic activism that dates from the mid 19th century became the predecessor of the more broadly based environmental organizations that has been visible in California politics since the 1970s. They have continued to address material and often visible threats to the state's environmental quality such as air and water pollution, energy use, hazardous chemicals, electronic waste, and most recently climate change.

At the same time, the environmental impact of the sectors responsible for the state's economic growth have changed over time. Gold mining dominated the state's economy for its first three decades, the state was a major industrial producer of war materials during the Second World War and had an important aerospace sector during the decades of the Cold War. California still has economically important "polluting" industries. The state is the third largest oil producer in the United States and its refineries produce the substantial amounts of gasoline it consumes. Agriculture, which has major negative environmental impacts, has been the state's most important industry since the 1880s, and California's several ports are also substantial contributors to pollution.

However, in part as a response to the state's relatively stringent environmental regulations, "dirty" industries have become more likely to be located outside the state. Alternatively, industries that benefit from the state's environmental quality are more likely to be located in it. The latter likely includes the high technology firms in Silicon Valley and the Bay Area, along with other business sectors whose employees value California's quality of life. Both business location trends have served to weaken business opposition and increase business support for policies aimed at keeping California "green."

The extent to which business has supported many of the state's environmental initiatives can be seen in the backing of important commercial interests, including the state's large green technology industry, for California's state's pioneering policy initiatives to address the risks of global climate change. It is especially evidenced in the remarkable lack of backing from the state's business community for Proposition 23, which in 2010 proposed to roll back the state's distinctive climate change regulations. Biber writes:

California's "long history of . . . aggressive efforts to develop energy policy that increases efficiency and reduces dependence on fossil fuels . . . have . . . over the years created an interest group landscape that is supportive of stricter efforts to reduce

carbon emissions and hostile to efforts to repeal energy efficiency and renewable energy mandates.⁶³

The voters in other states might also oppose similar climate change roll-back efforts, though perhaps by not as great a margin (it lost 61 to 39%). But in few other states would there be virtually no support from the state's business community to weaken such an important expansion of government regulation. In short, California has a long history of business support for stronger environmental protection dating from the steamship companies of the 1860s to the clean tech firms in Silicon Valley in the 21st century.

What lessons, then, does California's history offer to help us understand the conditions under which there is likely to be strong political support to expand local or state environmental regulations? Two sets of inter-related factors appear to be especially critical. First, there must be a significant local population which is adversely affected by a particular commercial practice that has damaged or threatens to damage the surrounding natural environment which it personally values. If the natural environment is less attractive or valued to begin with and relatively few people would be disadvantaged by its deterioration, there is less likely to be a critical mass of public support for protecting it. Second, there must be a viable business or economic alternative to the destructive environmental practice: some set of commercial interests must be disadvantaged by a current or proposed industry practices and believe that they would financially benefit by challenging and changing them.

This is less likely to occur if a particular region is primarily dependent on an environmentally destructive industry. In that case, countervailing business -or public - pressure to pursue a greener growth strategy is less likely to emerge. Consider, for example, the widespread ecological damage in West Virginia caused by mountaintop removal – a form of strip mining in which the tops of mountains are blow away in order to expose coal seams. The earth that does not contain coal is then shoved into adjacent stream and valleys. This practice, which is strikingly similar to 19th century hydrologic gold mining – has destroyed hundreds of mountains and over 1,000 miles of stream in the Appalachian mountains.⁶⁴ But unlike in California this has not been strong local pressures to end this practice because there are no economically viable alternatives. Nor do those who live in the area place a sufficiently high value on the natural environment that is being threatened.

California's most important lesson may be the extent to which it has demonstrated that economic growth and environmental protection can re-enforce each other. If the gold rush showed the economic value of exploiting the state's geography, then the alternative symbol of the golden state, namely "Yosemite," has demonstrated the value of protecting it.

⁶³ Eric Biber, "Cultivating A Green Political Landscape: Lessons for Climate Change Policy from the Defeat of Proposition 23," *Vanderbilt Law Review* Vol. 66 No. 2 March 2013, p. 401

⁶⁴ Paul Steinberg, *Who Rules the Earth?* (New York: Oxford University Press, 2015) p. 91