CONTENTS

INTRODUCTION

The Purgatoire River, southeastern Colorado's longest and largest watercourse south of the Arkansas River, originates in the Sangre de Cristo Mountains and flows east to the plains. There, for seventy-five miles it cuts through a slightly uplifted land of folds and domes before emptying into the Arkansas. The region is an ecological wonder of highlands, canyons, juniper-covered hills, and grasslands that form a dendritic network of ephemeral tributaries that rush occasional floodwaters into the Purgatoire. Some of those dry or nearly dry streams extend as far east as the low shelf lands of the Hugoton Embayment near the Kansas border before emptying into the Arkansas.

Remarkably, for at least 100 centuries, Native Americans occupied this land, living with nature's limits and excesses before the United States dispossessed them of title to it by the 1860s. Hispanic and white settlers began filing for title here in the mid-nineteenth century, the former fashioning livelihoods by simple irrigation subsistence farming and the latter by grazing livestock and dry farming. Into this setting, along two of the

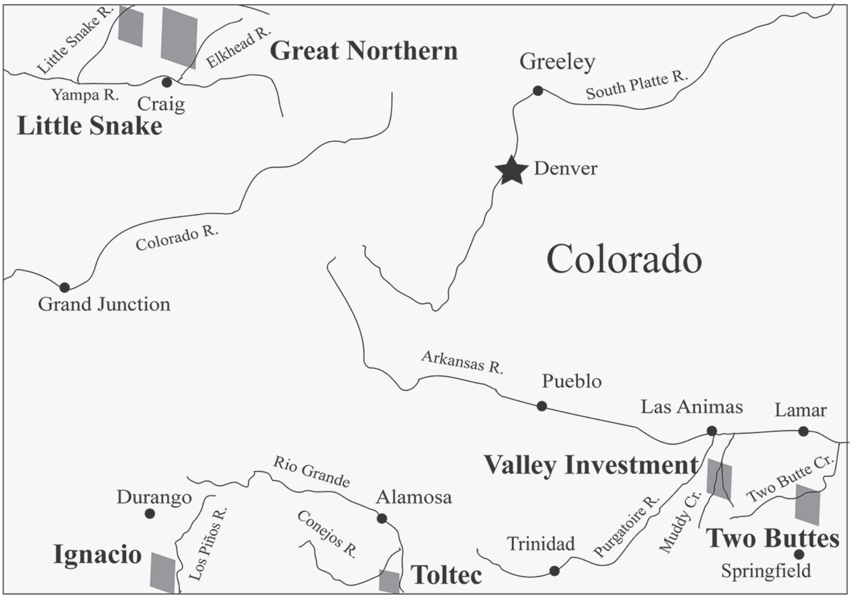
https://doi.org/10.5876/9781646426492.c000

region's nearly dry streams, determined irrigation developers intervened with nature and brought to fruition Colorado's only reclamation projects constructed under the United States Federal Desert Land Act of 1894, more commonly called the Carey Act after its sponsor, US senator Joseph M. Carey of Wyoming. The law offered each western state 1 million acres of desert-classified federal land for reclamation by development companies to spur private irrigation and the settlement of actual settlers. The Two Buttes Project in Baca County drew a colony of 200 settlers in 1911, and the Muddy Creek Project in Bent County lured nearly as many settlers in 1919. Here, in a region that receives less than fifteen inches of annual precipitation, the developers time and again went to extraordinary means in an effort to create irrigated paradises that were akin to nearby irrigation development in the well-watered valleys of the upper Purgatoire and the lower Arkansas. In their zeal, the developers built extensive waterworks to capture floodwaters, only to experience financial failure, leaving settlers to fend for themselves. By 1970 the descendants of these Carey Act settlers sold the last of the private waterworks to the State of Colorado, which for years had managed parts of Two Buttes and Muddy Creek Reservoirs as wildlife conservation areas. The state continues to administer both public wildlife areas in perpetuity through its Parks and Wildlife Department, and nature's limits and excesses likewise continue to dictate the agency's charge of wildlife conservation.

This book explains the nature of the Carey Act and its application in Colorado; it concludes with why Two Buttes, Muddy Creek, and several other scattered remnants of the 1894 US law's failure have become important wildlife conservation areas. It argues that Carey Act developers, few of whom had experience in agriculture, refused to accept the limitations of their schemes but persisted nonetheless, often until well after financial ruin eventually crushed their hopes of building vibrant and enduring communities. The values of the developers seeking windfall profits were at constant odds with the values of settlers seeking viable livelihoods. That conflict explains much about the Carey Act's failure in the Centennial State. In turn, from that spectacular failure, various conservation-minded individuals and organizations advocating the sweeping ethic of environmentalism seized the opportunity to transform the most developed of the schemes into publicly owned lands and waters. These places, although quite small—Two Buttes at 8,533 acres and Muddy Creek at just 2,438 acres—are unique habitats, set-asides for the exclusive benefit of wildlife. They are the earliest examples of wildlife conservation efforts on Colorado's southeastern plains. Moreover, they are the example from which more than 100,000 acres of subsequently established state wildlife areas across that horizontal landscape have blended into the farming- and grazing-based economy of the early twenty-first century.

The Two Buttes and Muddy Creek developments were isolated. Their contrast could not have been more dramatic from the developments of the upper Purgatoire Valley and especially along the lower Arkansas Valley, where irrigated bottomlands and easily irrigated benchlands numbered tens of thousands of acres. These farmers might put as much as 5 acre-feet of water on various crops per year, as opposed to 1.5 acre-feet at Two Buttes and Muddy Creek. From Pueblo to the Kansas state line, a string of railroad towns grew, and the sugar beet industry transformed the business of farming in 1900. The earliest significant irrigation development in Colorado had occurred along several of the state's rivers, where settlers had built self-funded irrigation ditches during the 1860s and 1870s. Sufficiently capitalized corporations later constructed larger irrigation systems and leased or sold land and water to farmers on adjacent benchlands. By 1900 many of these enterprises, lacking adequate water supply and a legal right to water during droughts, proved unprofitable; farmers had come to possess pieces of the systems reorganized as mutually owned irrigation companies. Notwithstanding shifts in the ownership of irrigation enterprises, Colorado, since statehood in 1876, bound the use of water to its water appropriation law that granted users the right to divert water in order of priority based on the earliest-in-time users.[1]

Carey Act developers nearly always looked to the very remote benchlands, and their water rights, which they sold appurtenant (attached) to the land, were always junior in priority. As the reader will see in the following chapters, each of their schemes to capture floodwaters proposed using just 1.5 acre-feet of water to irrigate high-profit crops such as alfalfa, corn, and sugar beets. Across Colorado they fantasized about building thirty-four new irrigation projects between 1902 and 1921 and proposed spending $30 million to make desert lands bloom. By 1925 every Carey Act project in Colorado was an abject failure, and the state effectively ceased



MAP 1. **Carey Act projects in Colorado segregated, parceled, and sold to settlers**

participating in the law's offering. In addition to the Two Buttes and the Muddy Creek Projects, only four other Carey Act developments advanced beyond the promotion stage to construct canals and begin locating settlers. In northwestern Colorado's Moffat and Routt Counties, developers undertook building the Little Snake River Project (38,000 acres) and the Great Northern Project (142,732 acres); in southwestern Colorado's La Plata County, the Ignacio Project (16,000 acres); and in the San Luis Valley in Conejos County, the Toltec Project (14,852 acres). These four projects, however, never constructed significant waterworks such as dams and advanced canal systems and thus only feature in this story of the Carey Act as they relate to the law in a general sense. A list of the Carey Act projects across Colorado, with details of each and a map of their location, as well as the full text of the Carey Act appear in the appendixes.

The Carey Act was an early public policy example of cooperative federalism. It offered a package deal for the land: free segregations of federal land to the states to attract heavy capital investment to construct substantial irrigation systems and charge settlers under state regulation from $35 to

$60 per acre—enough to cover costs and turn a substantial profit. Legally binding contracts bound each party to the deal. Once settlers had paid off the financing of their systems, they were to assume mutual ownership of the waterworks and title to their farms for which they had pledged, not mortgaged, to lenders. To pay for a state's expense in administering the law, including eventual certification of a farmer's land patent, the state charged the settler a nominal sum of fifty cents per acre. This was the law's rationale: that people might afford to settle in many arid regions, and the federal government would be free of having to pay the extraordinary cost of developing irrigation. To a settler, the law offered the acquisition of land with irrigation at a cost as little as one-fifth that of land along established canals.

Moreover, the developers' business was transactional, centered more on the exchange of money than on a lasting concern for the success of farmers. But as historian Robert Pisani has written, developers also emphasized, as did other irrigation advocates, the moral good in the economic dimension of their efforts and also the public good in the settlement of arid lands. They sold settlers the garden myth that American virtues derived from an agrarian way of life and that irrigation specifically offered farmers a way to avoid the ever-present likelihood of bankruptcy that dryland farming often brought. Irrigation, they said, also paid better because it increased yields, allowed for crop diversity, and might assure a high-value crop such as sugar beets or alfalfa even in dry years. In addition, clusters of small family farms under irrigation systems could create viable communities across the vast stretches of empty lands. There, American capitalism could flourish and strengthen the American family and the middle class.[2]

Colorado formally sought to claim less than 300,000 acres under the Carey Act. Patented (titled) land from the federal government to the State of Colorado amounted to a mere 37,302 acres: 13,302 acres at Two Buttes and 24,000 acres at Muddy Creek. Although developers took the four other projects to the point of settling farmers, only the two southeastern Colorado developments furnished water to the land. Nevertheless, the Two Buttes Project went bankrupt in 1927, though some of its colonists persisted through the Dust Bowl era and later periods of drought and grasshoppers, and irrigated from their reservoir until they sold it to the State of Colorado in 1970. The Muddy Creek Project collapsed entirely in 1945 after decades of failure. Today, Two Buttes Reservoir is the central feature of the Two Buttes State Wildlife Area. The Muddy Creek Reservoir site comprises the Setchfield State Wildlife Area, which Colorado purchased in 1956. A raging torrent in 1965 breached this dam, and wildlife officials manage it as a dry lake ecosystem.

Consequently, this book aims to serve two audiences. For the general reader with an interest in the history of the American West, it offers an inclusive narrative of the little-known Carey Act in Colorado. It explains the law's origins and its saga of repeated failures, the untold stories of developers and a few of the settlers who chanced irrigating from intermittent streams that flow less than five months annually or ephemeral streams that flow only during flash floods. And it explains the law's aftermath of conservation successes and challenges. For the environmental historian, it offers the example of how nature pushed back against capitalism and how nature dictates its own conservation design despite human efforts to conserve it. This book makes an important contribution to the study of agricultural development in the West by offering a counterpoint to prevailing studies of the Carey Act's relative success in Idaho, some projects in Wyoming, and one development in Utah. Those well-examined Carey Act projects are not analogous to the 1894 law's unfortunate saga in Colorado. Moreover, a key intervention this book makes is to place the story of the Carey Act's failure in Colorado at the center of wildlife habitat conservation efforts that led people to rethink and reconfigure their relationship with the arid land and capitalism's exploitation of it on the state's southeastern plains. Those restoration and preservation efforts, explained here for the first time, elevate wildlife conservation's importance into the greater discussion of soil conservation and water conservancy policies of federal, state, and local authorities during the post–Dust Bowl years. Hence, this book correlates patterns of reclamation failures decades in the making with conservation outcomes.[3]

Some readers might see in this agriculture-to-conservation conversion an inevitable progression, a teleological outcome that forces of nature and circumstance have guided—swallows nesting under a bridge, if you will. Indeed, tens of thousands of geese came to winter annually at Two Buttes Reservoir. And thousands still do. The endangered humpback chub today swims below a reservoir contemplated by the irrigation developers of the Great Northern Carey Act Project. Yet only because of the establishment of comprehensive wildlife conservation policy initiatives dating to the 1930s and vastly expanded across the state since then do the geese continue to light and does the once nearly extinct fish survive. Here is a story not of environmental and moral declination but of correcting errant steps.[4]

Those missteps for Colorado began with the creation of the Carey Act. As detailed in chapter 1, Senator Joseph M. Carey, policymakers who supported his 1894 law, and developers who chased its offering of windfall profits embraced the deeply held rationalizations of America's westward expansion. Economic and social justifications informed these men's thinking. As historians William Cronon and Richard White each emphasize, the capitalist market system, which commodifies nature, was an essential dynamic for development in the American West. Indeed, the Carey Act's design, similar to its unsuccessful predecessor policy proposal of arid land cessions to states, spurred the creation of wealth by making public domain private property, thus advancing American values. Moreover, the Carey Act was among the earliest of many public US policy proposals that sought to bend nature's design for material benefit across the arid regions of the West. The subsequent Reclamation Act (1902) set into motion the most consequential of all reclamation policies, a course that historian Donald Worster so aptly coined the Hydraulic Society.[5]

Chapter 2 traces the unsuccessful efforts of Greeley-area developers Daniel A. Camfield and George H. West, beginning in 1895, to utilize the Carey Act in Colorado along undeveloped benchlands adjacent to the South Platte River. It shows how the Carey Act's early bureaucratic inadequacies as well as the ongoing economic depression of 1893—the worst to that date in the nation's history—made marketplace financing impossible. That failure proved fortuitous because it allowed the ever-resourceful developers to utilize Colorado's 1905 Irrigation District Act and the convention of mutual irrigation companies to finally undertake their developments. As well examined by two separate historians, Daniel Tyler and Michael Weeks, those irrigation institutions paved the way for the massive transformation of the Poudre and South Platte watersheds, with Colorado's 1937 Water Conservancy District Act and United States Bureau of Reclamation funding for water projects begun thereafter. The Carey Act, in contrast, was entirely dependent on marketplace financing and bound to its statutory requirements, and it took off only after the 1893 depression lifted and the nation's irrigation bond market began its recovery after 1903. Most projects across the state were pure speculative promotions. But the four previously mentioned unfinished projects in northwestern and southwestern Colorado and the state's San Luis Valley helped keep the Carey Act relevant as a public policy, and they further illustrate the boundless minds of developers unwilling to accept nature's limits.[6]

Chapters 3 and 4 place the Carey Act's greater significance in Colorado at the Two Buttes and Muddy Creek developments, the historic homeland of Indigenous and later-settling Hispanic peoples. These chapters examine the critical nature of the law's regulatory, financial, and social dynamics across a historic region and show how chimerical thinking influenced the developers of each reclamation project. Unrealistic expectations and the Carey Act in Colorado go hand in hand. Developers, with assurances from hydraulic engineers, assumed that flash floods—which seemed regular in southeastern Colorado—would sufficiently irrigate their segregations from streams that often ran dry much of the year. As identified by historian James E. Sherow, this chimerical mindset drove progressive engineers who were developing the hydraulic-dependent regions of the West. Fred L. Harris, the lead developer at Two Buttes, nimbly tailored the scheme to fit the Carey Act's peculiarities, especially its oversight by the State Board of Land Commissioners of Colorado and the law's dependence on the hypothecated irrigation bond. Little appreciated has been Harris's sale of land parcels and water contracts to settlers—both men and women—in his attempt to create an exclusive community that was distinct racially and morally from the region's historic tradition. The resulting irrigation works cost roughly $500,000, and water first ran in its canals in 1912. Meanwhile, along Muddy Creek, the ephemeral tributary of the Purgatoire, a combination of unchecked imagination, the 1894 law's lack of corrective measures, and the hypothecated irrigation bond worked against each other until developers reimagined the scheme by using upfront financing. However, both projects always teetered precariously close to financial ruin. Each project lacked sufficient water, had too few successful farmers, carried too much burdening debt, and was characterized by constant tension between settlers and developers.[7]

The Carey Act, rather than extending reclamation development beyond established canals, proved to be impeding it—a pattern of failure across Colorado and much of the West that state and federal authorities well understood by 1914 but did little to address. As explained in chapters 5 and 6, the collapse of the irrigation bond market in 1911 and Colorado's successful petition for an additional 1 million federal acres at the behest of developers set into motion bitter protests from settlers living on undeveloped projects in northwestern Colorado as well as from other landowners nearby. In 1914, progressive-era reforms that restructured the State Board of Land Commissioners of Colorado as well as initial federal investigations that attributed the state's pattern of Carey Act failures to irresponsible promotors, insufficient financing, and incompetent engineering led the state agency to cancel roughly 25 percent of the acreage it had previously segregated. The Muddy Creek Project was among the canceled projects for its lack of progress. But such failures were the pattern across the American West. The region's governors, among them Wyoming's Joseph M. Carey, met with federal reclamation officials that year in Denver, but neither party showed interest in interfering with capitalism. Moreover, they outright rejected as socialist and un-American the advice of Elwood Mead, renowned reclamation expert and one of the architects of the Carey Act, who proposed direct federal aid to settlers based on his experience establishing Australia's closer communities. Thus, the patterns of failure continued.

Chapters 7 and 8 foreground the later stages of the Carey Act's long collapse in Colorado, which gave conservation-minded individuals and groups economic and environmental justifications for converting the land and water of private enterprises to publicly owned wildlife areas. The deviation to that endpoint took decades. The first deviation took place at the Muddy Creek Project, which developers reconstituted as a mutual irrigation company that was partially self-funded and built a $425,000 irrigation works as the first phase of their attempt to irrigate 24,000 acres. They received unprecedented assistance from the state land board before the project's cascading financial troubles rendered it functionally inoperable. The first-person account of settler Isabel Dodge O'Brien throws light on everyday life there and offers a dual glance at the positive qualities of pioneering that enriched her family's growth but also forced it to rethink the propriety of chancing a livelihood dependent on an ephemeral stream. The project's subsequent formation in 1928 as an irrigation district, though subject to the Carey Act, was done principally to secure federal funding, especially during the New Deal. The move proved futile as infuriated settlers effectively thwarted its further catastrophic circumstance amid the Dust Bowl conditions of the 1930s and acknowledged the error of attempting to reclaim the vast acreage by irrigation. At Two Buttes, in contrast, the divergence from reclamation to conservation proved more contemplative. Its founder and manager, Fred L. Harris, came to acknowledge the project's nature-dictated limitations early on, forcing the enterprise into involuntary bankruptcy in 1927 and downsizing it from 22,000 acres to 13,000 acres and, later, to roughly 3,000 acres. He then reimagined the reservoir's function during the Great Depression and Dust Bowl years as both an agricultural and a conservation hydraulic works. As shown by historian Mark Fiege, nature constantly thwarted such attempts by western farmers to transform their distinct irrigated units of capitalism, forcing them to act according to *its* design.[8]

Two Buttes and Muddy Creek Reservoirs were key examples of such units of capitalism, and they had always had a recreational feature in their early history. The stocking of fish for local anglers began immediately after the construction of each impoundment. Migratory waterfowl, following the North American Central Flyway, found the new reservoirs inviting for winter stopovers, and hunters occasionally shot them. However, the reservoirs' importance as wetlands conservation areas only occurred after 1930 with the alignment of world and national conservation values, public wildlife policies, the science of ecology, neighboring landowner buy-in, and sufficient funding capabilities to sustain a conservation purpose. The rise of contemporary environmentalism since the 1960s has further forced a reevaluation of these two relatively obscure locations as non-game and threatened species further define the relationship of humans to nature. Indeed, as historian Philip Garone examines in his environmental study of California's Central Valley, a vast area somewhat analogous to parts of the Great Plains, such shifting attitudes about the unrestrained manipulation of nature and the economic incentives to drain wetlands have been gradually overshadowed by ecological justifications to preserve them.[9]

Chapters 9 and 10 detail the gradual development of those lasting aesthetic values that deviated from the materialistic principles that created the Colorado Carey Act projects—a shift that led to their transformation into wildlife areas, special places where nature still regulates but also gifts its wonders. At Two Buttes, the project's failed financial condition and drastic paring down of irrigated acreage gave greater importance to its recreational use. Its manager, Fred L. Harris, a state legislator, successfully secured its designation as a state wildlife refuge. Such designations by the Colorado General Assembly (like the federal government's location of national parks and monuments) were nearly always given to its vertical landscapes of mountains and its great canyon country. Congressional enactment of federal funding for wildlife protection in 1937, 1950, and 1965, with its antecedents deep in the history of the American conservation movement and with critical help from local wildlife groups, provided a scientific as well as recreational rationale for Colorado to eventually purchase the area in 1970. This new approach to American wildlife management, as historian Jared Orsi has shown, contributed to the birth of ecological thinking—the ethic that considers nature and society to be interdependent and forms the core of modern environmentalism. Not to be undervalued in this ideological shift was the confluence of regional soil and water conservation efforts as well as the development of groundwater for irrigation. Meantime, at the site of the blighted Muddy Creek Reservoir, where no significant groundwater existed, state wildlife officials, under pressure from local conservationists, purchased and refitted the waterworks into the Setchfield State Wildlife Area in the late 1950s. However, the venture was short-lived, as nature reclaimed it after a killer flood in 1965 rendered its dam inoperable and repair too costly. Muddy Creek Reservoir's precious water right for wildlife became the all-important, critical asset for far southeastern Colorado's largest state refuge, the 19,000-acre John Martin Reservoir, as the region's expansion of wildlife habitat areas has come to exceed 144,000 acres. The contemporary Setchfield State Wildlife Area represents its own unique ecosystem, intermittent rivers and ephemeral streams (IRES), and illustrates the expanded meaning of these critical, worldwide environments, especially in Australia.[10]

The errors promulgated by the Carey Act in Colorado represent much of the content of this book. Missteps happen in life. The failure of the

Carey Act across the state is largely the story of a disconnect between private developers' hopes for windfall profits and the reality of unstable financing, economic rollercoasters, and the physiographic challenges of reclaiming high sagebrush lands. For most settlers who had staked their hopes and dreams on an agrarian way of life, the failure proved to be heartbreaking. Unfortunately, the historical record of settlers is thin, which is a shame.

And yet, remnants of the old Carey Act projects remain, their failures speaking to the missteps of humans and to nature's impermanence. Therein may reside a greater meaning of each to the broader history of development along the extensive watersheds that flow across the American West. The Arkansas River waterway—like the complex and vexing river systems of the mighty Colorado, the South Platte, the Rio Grande, the unruly Brazos and Pecos Rivers in Texas, and the lessening Santa Cruz in Arizona—is its own historical example of Americans' faith in their ability to manage nature. In the end, though, that ability must always yield in some fashion to nature's persistent cycles of flood and drought.[11]

Public and private conservation awareness along the waterways of the West, such as that in southeastern Colorado, demonstrates that a more sustainable use of wetlands now defines many places. In addition, the efforts of local southeastern Colorado residents and state and federal authorities to memorialize the historic sites of Boggsville, Bent's Fort, the Sand Creek Massacre, and the Japanese American internment camp of Amache further show a more thoughtful awareness of what such places mean. Environmental laws, private and public conservation organizations, and partnerships with landowners today balance aesthetic values and livelihoods in places where agricultural profit margins are thin. Perhaps this balance bodes well for the region's future, particularly for the benchlands and usually dry streams—places where boundless-thinking developers once believed it was possible to domesticate the landscape above the Purgatoire and on the wide shelf lands at the western edge of the Hugoton Embayment.