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FROM SUBSISTENCE TO DEPENDENCE: THE LEGACY OF RECLAMATION
AND ALLOTMENT ON QUECHAN INDIAN LANDS, 1700-1940

By

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Thesis

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From Subsistence to Dependence: The Legacy of Reclamation and Allotment on Quechan Indian Lands, 1700-1940

Chairperson: Dan Flores

The Quechan Indians of southeastern California's Fort Yuma Indian Reservation have occupied the fertile floodplain near the confluence of the Colorado and Gila rivers for more than 300 years. Since their southward migration to this area sometime in the seventeenth century, tribal members supported themselves through the adoption of a multifaceted subsistence strategy that incorporated cultivated agriculture, the semi-cultivation of wild plants, and the gathering of wild-grown foods. To support their agricultural endeavors, the Quechans relied on the annual flooding of the Colorado River to provide both irrigation water and naturally fertilizing silt to the river-bottom lands on which they raised abundant crops such as corn, beans, pumpkins, and melons.

The implementation of the federal government's irrigation and allotment policies of the late-nineteenth and early-twentieth centuries, however, undermined the Quechans' traditional subsistence system. Despite policymakers' visions of turning Indian people into Jeffersonian farmers by allotting and bringing large-scale irrigation projects to their lands, these two, deeply intertwined policies rarely fulfilled their grand promises. For the Quechans, the ultimate impact of the turn-of-the-century allotment and irrigation policies was to transform a once-self-sufficient, agriculturally oriented tribe into a group whose members relied, largely, on leasing and wage work, not farming, to support themselves.

In addition, while government policies discouraged tribal farming efforts, the irrigation system built to serve their lands undermined the environmental conditions that had encouraged the tribe's agriculturally based subsistence practices. During the early 1900s, dams and levees would halt the floods on which the Quechans once relied for irrigation, depriving tribal farmlands of all-important silt deposits carried by the river. By the mid-1900s, seepage from the All-American Canal was threatening the viability of the entire project. All the while, the Quechans' removal from their traditional subsistence system—and the nutrient-rich diet it supported—rendered tribal people ever more susceptible to disease, ill-health, and even death. In short, the federal government's allotment and reclamation policies had disastrous consequences for the Quechans, promoting both environmental and cultural changes that discouraged farming on their lands and pulled up the roots of this historically agricultural tribe.

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Despite the often-solitary nature of writing, historical or otherwise, I have found that completing a task of this magnitude has required the assistance, patience, and support of a vast array of individuals. To name just a few, I would first like to thank all of my colleagues at Historical Research Associates, who have not only supported my work on this thesis in a variety of ways—including providing me with precious time away from my normal work duties to get a solid start in crafting what was once an article-length piece into this thesis-level study—but have also provided listening ears and helpful ideas during numerous water-cooler and kitchen-sink discussions. I would also like to thank Dan Flores, who not only oversaw the writing of my initial article-length study nearly six years ago, but also provided thoughtful and insightful edits for each of my thesis chapters as I drafted them. The various librarians and archivists—including those at the National Archives and Records Administration’s central branches in Washington, D.C., and at NARA’s Pacific Region—who assisted my research along the way also deserve recognition here.

Last, I would like to thank my partner, Andi, who has patiently and supportively endured several weekend-less months during my thesis-writing efforts, and my five-year-old son, Henry, who has provided me many evenings and weekends of much-needed time (and mental space) away from my thesis—as well as a constant reminder of what is most important in my life. In writing this thesis, I have increasingly come to realize the value of having a strong, supportive, loving family, and, in Henry and Andi, I could not ask for a better one. I truly thank them for that. And, to them, I dedicate the work that follows.

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1. INTRODUCTION

At the confluence of the Colorado and Gila rivers, where the southern boundaries of California and Arizona now meet, resides a history etched deeply into the land and the people who have occupied the region for more than 300 years. Since their southward migration to the confluence area prior to the eighteenth century, the Quechan Indians wrested a living from this sometimes-harsh desert region, largely by relying on the fertile lands within the lower Colorado River's floodplain. However, during the first half of the twentieth century, this area—and the river that runs through it—changed inalterably, and, with these changes, came significant impacts for the people who had long depended on the river and its surrounding environment for their livelihood and subsistence.

The stretch of the lower Colorado occupied by the Quechans bears little resemblance to the mighty, upper reaches of the river that have often captured the imagination of explorers, adventurers, and nature lovers. The lower reaches of the Colorado River contain neither the ruggedly spectacular scenery of the Grand Canyon nor the awe-inspiring, mountainous terrain of the river's headwaters. Even before twentieth-century dams tamed the upper Colorado, this area represented a wholly different landscape—one dominated by the type of arable, river-bottom lands on which the Quechan Indians planted diverse crops, such as corn, beans, pumpkins, and melons. While the untamed river flooded onto these lowlands each year, it did so gradually and with heavy silt loads, providing Quechan families with fertile areas they could rely on both for the cultivation of crops and for wild-food gathering.

The era of dam-building and reclamation, however, forever altered this fruitful environment and the Quechans' subsistence system upon which it relied. Today, as

historian William deBuys points out, the lower Colorado River has transformed into a series of concrete-lined canals, siphons, and laterals, utilized to irrigate distant fields in the once-arid Imperial and Coachella valleys, rather than remaining a natural stream in its own right. Below the All-American Canal—which runs across Quechan mesa lands to feed water to the thirsty crops growing in southern California’s principal agricultural valleys—the main channel of the Colorado is, at best, a “stagnant marsh.” Further south, the river no longer even concludes its seaward journey into the Gulf of California. And the annual floods that once watered and fertilized Quechan farming lands have not occurred for nearly 100 years.¹

Big stories often come from small places. The river-bottom lands held by the Quechan Indians represent a case in point. Although this tribe occupies an often-forgotten part of America’s third-largest—and, perhaps, most influential—state, along a stretch of the Colorado River that no longer even reaches the sea, the alteration of the Quechans’ environment and subsistence practices over the past century reflects several of the major themes in Native American and environmental history. Like many tribes, the federal government’s allotment, irrigation, and agricultural policies of the late 1800s and early 1900s devastated the lands and traditional livelihood of the Quechan Indians. Examining how these particular impacts occurred and the ways in which the tribe responded to these altered circumstances helps elucidate the broader history of Indian people—as well as the larger history of the Southwest—during this period.

¹ William deBuys, *Salt Dreams: Land & Water in Low-Down California* (Albuquerque: University of New Mexico Press, 1999), 4-8. See also Donald Worster’s *Rivers of Empire*, where he points out that, due to twentieth-century irrigation construction, the Colorado River has not reached the sea since the early 1960s. Discussing the lower Colorado, Worster wrote that the river’s lower reaches had been reduced “to a mere drainage ditch, lined and edged, carrying only runoff and local floods now and then,” while the river’s delta had “completely dried up and disappeared.” See Donald Worster, *Rivers of Empire: Water, Aridity, and the Growth of the American West* (New York: Pantheon Books, 1985), 272.

For most Native Americans, the late-nineteenth and early-twentieth centuries were dominated by federal efforts to assimilate them into the larger, American society. The principal means by which officials attempted to achieve this goal was through the division of tribally held lands into individually owned allotments and through the instruction of Anglo-American farming techniques and market-driven agricultural practices. On the arid lands lying beyond the hundredth meridian—and, particularly, in the arid landscape of the American Southwest—this often required the construction of large-scale irrigation systems. Through the interrelated efforts of allotment, irrigation, and market-based agriculture, federal policymakers hoped to transform tribal people into self-sufficient farmers, whom they could situate comfortably within their Jeffersonian vision for American life.²

For all their seemingly benevolent intentions, though, these officials failed to recognize several important considerations. For one, although most Native American groups did not fit easily within the government’s overarching agrarian model, they were already self-supporting people, who had actively managed the landscapes in which they lived for centuries. While some groups relied mainly on hunting and gathering for their support, others incorporated cultivated agriculture into their subsistence practices. In making choices about how best to establish a viable livelihood, Native Americans both altered and adapted to the varied environments they occupied. Through this process, Indian people developed an intimate knowledge of their lands—a deep understanding that government officials sorely lacked, no matter how much scientific training they may have had, nor how firmly they held onto their assimilationist vision for Indian people.

² Donald J. Pisani, *Water and American Government: The Reclamation Bureau, National Water Policy, and the West, 1902-1935* (Berkeley: University of California Press, 2002), 154-55.

Unlike some tribes who had relied mainly on hunting and gathering for their subsistence, the Quechan Indians already depended, to a large degree, on agriculture for their support, prior to Euro-American contact. Despite this, the impacts of the federal government's turn-of-the-century allotment, irrigation, and agricultural policies proved no less traumatic for them than for less-agriculturally-oriented tribes. Federal bureaucrats viewed the Quechans' subsistence-based farming techniques with disdain, believing their lands could achieve greater levels of productivity—along with greater levels of tribal self-sufficiency—if the Indians would, instead, adopt technologically advanced and market-driven agricultural methods. Simply put, it was not enough that the Quechans were already an agricultural tribe. Rather, federal officials, during the late 1800s and early 1900s, wanted them to fit within the particular, agrarian mold they envisioned for all Native Americans.

Allotment played a significant role in the government's efforts to achieve this objective. By the early 1890s, Indian agents, irrigation engineers, and agricultural entrepreneurs were eyeing Quechan lands—which, by the mid-1880s had been set aside as the Fort Yuma Indian Reservation—as a potential site for an irrigation project. This plan hinged on the allotment of small parcels to individual Quechans and the sale of the remaining, arable lands within the reservation to non-Indian settlers. The proceeds from these land sales would be used to help pay for the construction of an irrigation project. Moreover, the whites who settled within the reservation would help demonstrate the advantages of Euro-American farming practices to the Indians, as well as the purported non-Indian virtues of “industry, self-discipline, and thrift.”³

³ Pisani, *Water and American Government*, 154-161. Discussing the importance of these “surplus” land sales to the reclamation program on Indian reservations throughout the West, Pisani indicated that

Although it took several decades for these plans to come to fruition and although the government, not private industry, became responsible for its construction, once built, the Yuma Irrigation Project had an almost-immediate impact on the lands and lives of the Quechan Indians. By 1909, Reclamation Service engineers had overseen the construction of the Laguna Dam at the northeastern corner of the Fort Yuma Reservation, along with an associated system of levees. In addition to ushering in a new era of reclamation for the Quechans, the building of the Laguna Dam and its levee system also signaled the end of the Colorado River's centuries-old flooding patterns, upon which the tribe had relied to cultivate its crops. Along with the stoppage of these yearly floods, the dam also prevented reservation farmlands from receiving their annual dose of silt, which had been essential for maintaining soil fertility under aboriginal conditions. The Laguna Dam, thus, stood as a harbinger of the devastating environmental and subsistence-related impacts of large-scale irrigation on Quechan lands.

Construction of the Yuma Irrigation Project also coincided with the development of another government policy that further discouraged Quechan farming in the early twentieth century—leasing Indian allotments to white renters. While this policy appeared contradictory to the overarching goals of assimilation and self-sufficiency, historian R. Douglas Hurt has indicated that Indian officials argued, at the time, that leasing would provide a source of income with which Indians could later farm their own lands, as well as providing non-Indian “agricultural examples” for tribal people to imitate.⁴ Again,

Reclamation Service officials argued that these proceeds could be “put to good use, as could the large blocks of land left over after allotment.” On the Fort Yuma Reservation, this would result in the sale of roughly half the reservation's lands to non-Indian farmers at what Pisani called “bargain-basement prices,” from which federal officials later deducted the cost of building the Yuma Project.

⁴ R. Douglas Hurt, *Indian Agriculture in America: Prehistory to the Present* (Lawrence: University Press of Kansas, 1987), 142-45. For Pisani's analysis of the government's leasing policy, see Pisani, *Water and American Government*, 158-59.

despite this outwardly benign intent, the leasing policy proved to be a failure on the Fort Yuma Reservation. Under its guise, white renters quickly gained control of the majority of Quechan allotments, soon after the Yuma Project's construction, leaving tribal people with ever-dwindling options for agriculturally based self-support and subsistence.

Faced with the difficult prospect of learning new agricultural techniques while having limited capital to apply to these efforts, Quechan tribal members increasingly came to rely on wage labor and lease rentals—from which government officials would also deduct irrigation-project costs—to support themselves. In addition to the obvious consequences on their livelihoods, this shift away from farming also had impacts on the Quechans' social and family dynamics. Since the tribe's traditional agricultural practices had incorporated the entire family unit, the increasing dependence on wage labor in nearby towns impacted tribal families at a fundamental level. The steady movement toward wage labor also proved deleterious to the overall health of the tribe, leading, in part, to lowered levels of necessary nutrients in their diets and to increased instances of disease among the Quechans.⁵

While the impacts of government-built irrigation structures and government-mandated allotment were reflected in the lives, livelihoods, and even the bodies of tribal members, the lands of the Fort Yuma Indian Reservation manifested other ill-effects. The substitution of subsistence-based crops such as corn, beans, melons, and pumpkins with market-oriented ones like cotton and alfalfa—which not only placed a greater strain on reservation soils, but also were typically planted without the benefit of crop-rotation techniques—further undermined the naturally regenerative process that existed under

⁵ Clifford E. Trafzer, "Invisible Enemies: Ranching, Farming, and Quechan Indian Deaths at the Fort Yuma Agency, California, 1915-1925," *American Indian Culture and Research Journal* 21, no. 3 (1997): 83-95, 106.

aboriginal agricultural conditions. Coupled with the earlier halting of the Colorado River's silt-laden annual floods, the introduction of new crops and the replacement of traditional farming practices led to ever-declining levels of soil fertility during the early twentieth century.

Congress dealt a final blow to the health of tribal farmlands in 1928, with the passage of the so-called Boulder Canyon Project Act. Legislators intended the law, principally, to serve as a means of taming upstream portions of the Colorado River, as well as providing irrigation to farms in the Imperial and Coachella valleys, located north of the Quechans' lands. However, the key component of the water-distribution system that fed these burgeoning agricultural valleys—the All-American Canal—ran directly through the Fort Yuma Reservation.⁶ Although the canal was not designed to furnish a drop of water to the reservation, seepage from it ultimately inundated the reservation, contributing to higher levels of soil alkalinity and threatening the security of the Yuma Project as a whole.

By the time engineers began diverting Colorado River waters into the All-American Canal in 1940, it had become clear that the application of the government's allotment, irrigation, and agricultural policies on the Fort Yuma Reservation had thoroughly undermined the traditional subsistence patterns and environment of the Quechan Indians. Rather than creating self-sufficient farmers, modeled on a Jeffersonian vision of agrarian independence, these policies had largely transformed a once-self-sufficient, agricultural tribe into a group of people who relied mainly on non-agricultural work for their subsistence. Instead of becoming Anglo-inspired farmers, the Quechans

⁶ deBuys, *Salt Dreams*, 154-63. For another discussion of the growth of the Imperial valley and the eventual construction of the All-American Canal, see Worster, *Rivers of Empire*, 194-212.

increasingly depended on wage labor and leasing to support themselves. Rather than planting the seeds of agricultural independence, as federal officials had intended, the policies of allotment and irrigation were ultimately responsible for pulling up the Quechan Indians' agricultural roots.

The devastating legacy of reclamation and allotment on the Quechan Indians' lands and livelihoods reflects the larger history of tribal people during the late-nineteenth and early-twentieth centuries. Since my study centers on such overarching topics as the development of irrigation and allotment on Indian lands, it owes a significant debt to several of the increasingly canonical works in Native American history. Among these are books such as Frederick Hoxie's *A Final Promise: The Campaign to Assimilate the Indians, 1880-1920*, which established the basic framework for understanding the federal government's allotment and assimilation policies of this period. As Hoxie points out, allotment became the primary means by which federal officials sought to incorporate Native people into the larger American culture, through the division of tribal lands into individually held parcels and the inculcation of Anglo notions of both private-property ownership and market-based farming practices.⁷

Perhaps more important to this study, from a theoretical and topical standpoint, are Richard White's *The Roots of Dependency* and R. Douglas Hurt's *Indian Agriculture in America*. In White's book, he laid the groundwork for examining how the efforts of non-Indians to assimilate Native Americans into the larger, market-oriented society of whites led both to increasing levels of dependency among tribal people and to widespread environmental degradation on Indian lands. Importantly, White also rejected the

⁷ Frederick E. Hoxie, *A Final Promise: The Campaign to Assimilate the Indians, 1880-1920* (Cambridge: Cambridge University Press, 1989, reprint of the 1984 University of Nebraska Press edition), 147-62, 169-71, 186-87.

previously suggested notion that, prior to Euro-American contact, Native Americans had existed either wholly outside of or as “one” with nature. Instead, White showed how the tribal groups he studied—the Choctaws, Pawnees, and Navajos—actively managed the landscapes within which they resided to create self-sustaining subsistence systems that later collapsed under the weight of assimilationist forces.⁸

Hurt’s book provides another important theoretical foundation for my current study. His thorough analysis of the broad developments in Native American agriculture across various regions, over time, form the backdrop for tribal- and reservation-specific histories of agricultural and environmental change, such as mine. In constructing this analysis, Hurt further emphasized the central place occupied by the agrarian myth in the federal government’s allotment-and-assimilation agenda of the late 1800s and early 1900s. In addition to underscoring the impact of allotment on Native people, he also revealed the importance of large-scale irrigation systems—especially in the arid West—to the government’s broader agrarian vision. On lands such as those held by the Quechan Indians, government officials deemed this type of irrigation development necessary, despite the fact that tribal people had successfully cultivated crops in this region for centuries.⁹

While historians, thus far, have focused little attention on the post-nineteenth-century history of the Quechan Indians themselves, ethnographer Robert Bee’s extensive work pertaining to the tribe—especially his book-length study *Crosscurrents Along the Colorado*—has also been informative for my thesis. While the principal focus of Bee’s work centered on the impact of federal Indian policy on tribal socio-cultural and political

⁸ Richard White, *The Roots of Dependency: Subsistence, Environment, and Social Change Among the Choctaws, Pawnees, and Navajos* (Lincoln: University of Nebraska Press, 1983), xiii-xix.

⁹ Hurt, *Indian Agriculture in America*, 136-53.

development, his study also included concise discussions about the history of allotment and irrigation development on the Fort Yuma Reservation, which have been instructive. Furthermore, his endnotes and bibliography proved invaluable in uncovering both primary and secondary sources relating to the Quechan Indians.¹⁰

Two of the early-twentieth-century anthropological studies relied on by Bee have also been extremely helpful in understanding the traditional farming methods and subsistence system of the Quechan Indians. Anthropologist C. Daryll Forde's 1931 article entitled "Ethnography of the Yuma Indians" has been especially important for providing information about the Quechans' aboriginal agricultural practices. Since Forde conducted his fieldwork in the late 1920s, many of his informants were alive before the introduction of modern irrigation systems and, thus, had direct experience with traditional farming techniques.¹¹ Also helpful was a broader study of aboriginal subsistence systems throughout the entire lower Colorado River basin, published by Edward Castetter and Willis Bell in 1951. While Castetter and Bell did not devote their entire study to the Quechans, the portions of their study pertaining to the tribe provide additional details about their aboriginal agricultural practices.¹²

¹⁰ Robert L. Bee, *Crosscurrents Along the Colorado: The Impact of Government Policy on the Quechan Indians* (Tucson: University of Arizona Press, 1981), ix-xiii, 160-66. For another book-length study of the Quechan Indians, see Jack D. Forbes, *Warriors of the Colorado: The Yumas of the Quechan Nation and Their Neighbors* (Norman: University of Oklahoma Press, 1965). Forbes's study is primarily an ethnographic work that focuses on the warring aspects of the Quechans' culture during period leading up to American contact.

¹¹ C. Daryll Forde, "Ethnography of the Yuma Indians," in *University of California Publications in American Archaeology and Ethnology* 28 (Berkeley: University of California Press, 1931), 83-278. Note the title of Forde's work, which reflects the predominant use of the name "Yuma" in reference to the Quechan Indians. While nearly all of the historical documents from the late 1800s and early 1900s refer to the tribe as the "Yuma Indians," I will use the term "Quechan," as this is the tribe's name for itself and the name that is in use today.

¹² Edward F. Castetter and Willis H. Bell, *Yuman Indian Agriculture: Primitive Subsistence on the Lower Colorado and Gila Rivers* (Albuquerque: University of New Mexico Press, 1951).

In a newly released book—published in late 2009 by the University of Nevada Press—historical geographer Robert Sauder examines the history of the Yuma Project in Arizona and California. Using Donald Pisani’s *Water and American Government* as a direct model, Sauder outlines the early difficulties associated with the development and settlement on the Yuma Project, ultimately arguing that, by the 1920s, the project “had turned the corner, and the agricultural possibilities so long promised were finally beginning to materialize.” While this may have been the case for the settlers on the Arizona portion of the Yuma Project—and, possibly, on the surplus lands within the reservation’s Bard unit—it was certainly not true for the Quechan Indians who previously farmed this once-fertile landscape. Although Sauder does discuss some of the negative impacts that the Yuma Project had on the Quechans—including the allotment, sale, and leasing of their lands—he is able to devote only a portion of his book to these issues and, thus, he is not able to provide an in-depth account of the project’s varied, deleterious effects on the tribe.¹³

Like Sauder’s book, Pisani’s *Water and American Government* also informed and provided an important model for my study. The chapters in Pisani’s book devoted to the impact of reclamation on Indian lands demonstrated, once again, the crucial role that irrigation played in the larger campaign to assimilate Native groups into American society. According to Pisani, reclamation, coupled with allotment and surplus-land sales, promised to provide Indian people a direct example of Anglo-American farming techniques, as well as instructing them in market-based agriculture. His detailed study of the impacts of constructing large-scale irrigation projects on Pima Indian lands in

¹³ Robert A. Sauder, *The Yuma Reclamation Project: Irrigation, Indian Allotment, and Settlement Along the Lower Colorado River* (Reno: University of Nevada Press, 2009), xviii, 19-35, 40-44, 63-65, 89-108, 164-172, 191-194, 196-204.

southern Arizona and on the Yakama Reservation in south-central Washington clearly reveals how the goals of the closely connected irrigation and allotment policies rarely fulfilled their promises for Native Americans.¹⁴

In a similar vein, David Rich Lewis's *Neither Wolf Nor Dog* analyzed the ways in which three Native American groups—Utah's Northern Utes, the Hupas of northern California, and the Tohono O'odham of Arizona—responded to the overwhelming forces of the intersecting policies of allotment, irrigation, and agriculture. Lewis showed how the application of the federal government's agrarian vision during the late 1800s and early 1900s altered the subsistence patterns of each group, with often-devastating "social and environmental consequences." In doing so, he also emphasized that these things did not simply happen *to* Indians, but, rather, that the responses and actions of Indian people to this "directed culture change" impacted how government policies played out in different places. Like White before him, Lewis showed Indian people as active participants in history, who both developed complex subsistence systems and responded, in varied ways, when those long-established systems became threatened.¹⁵

Discussing his reasons for selecting the three, above-mentioned tribal groups as case studies, Lewis indicated that he chose them, mainly, because of the diversity of the environments they occupied and because they all "experienced some form of imposed agrarian settlement" at roughly the same time. This provided him with a paradigm within which to examine "a *range* of native behaviors and responses to the same directed change." Additionally, Lewis selected tribal groups that he believed had been under-represented in the secondary literature in Native American history. By looking at Native

¹⁴ Pisani, *Water and American Government*, 154-201.

¹⁵ David Rich Lewis, *Neither Wolf Nor Dog: American Indians, Environment, & Agrarian Change* (New York: Oxford University Press, 1994), 3-6.

American tribes who had “received less attention than some others,” he hoped to do his part in “broadening the representation of native groups in the literature.”¹⁶

My intent is that this study will provide another example—using the models laid out by Lewis and Pisani—of how the lands and the subsistence strategies of a particular tribe, in a particular place, were impacted and forever altered by the federal government’s allotment, irrigation, and agricultural policies of the late-nineteenth and early-twentieth centuries. As Lewis sought to do with his work, my thesis also will serve to further broaden the representation of heretofore under-represented groups in the existing literature on Native American history. In so doing, my hope is that the story of reclamation and allotment’s legacy on Quechan lands will assist in understanding the varied ways in which the government’s overarching policies of the late 1800s and early 1900s impacted Indian people and altered the environments in which they resided and upon which they had subsisted for centuries.

¹⁶ Ibid., vii-viii.

2. TRADITIONAL QUECHAN AGRICULTURAL PRACTICES AND THE ESTABLISHMENT OF THE FORT YUMA INDIAN RESERVATION, 1700-1890

Each year the river spreads out for a long distance through the bottom lands in the season of the floods ... from this irrigation, they are greatly fertilized and have moisture for the crops which the Indians plant in them when the water recedes, and for the abundant harvests which they get.

Pedro Font, Spanish Missionary, 1775¹

Ethnohistorians are unsure about precisely when the Quechan Indians began occupying the fertile floodplain near the confluence of the Colorado and Gila rivers. Ethnographer Robert Bee relates a Quechan creation story involving a southward migration from the mountains near present-day Needles, California—more than 250 river-miles north of Yuma, Arizona—where the tribe’s ancestors were created “along with the Cocopa, Maricopa, eastern Tipai, and Mohave.” Bee suggests that these tribal groups split off from one another—as well as merging with smaller, now-extinct groups—sometime “between the thirteenth and eighteenth century,” ultimately occupying distinct parts of the lower Colorado River basin. But exactly when the Quechans’ southern movement into the confluence area occurred remains a source of speculation.²

What is clear is that the first two Spanish explorers who ventured to the convergence of the Colorado and Gila rivers—Hernando de Alarcón in 1540 and Juan de Oñate in 1604-5—did not make specific mention of the Quechan Indians living there. Scholars have offered varying interpretations about why neither Alarcón nor Oñate

¹ Father Fray Pedro Font, “Diary of an Expedition to Monterey by Way of the Colorado River, 1775-1776,” in Herbert Eugene Bolton, trans. and ed., *Anza’s California Expeditions*, vol. 4, *Font’s Complete Diary of the Second Anza Expedition* (Berkeley: University of California Press, 1930), 98-99 [hereinafter cited as Font, “Complete Diary,” in Bolton, trans. and ed., *Anza’s California Expeditions*, vol. 4].

² Robert L. Bee, “Quechan,” in Alfonso Ortiz, vol. ed., *Southwest*, vol. 10, William Sturtevant, gen. ed., *Handbook of North American Indians* (Washington, D.C.: Smithsonian Institution, 1983), 86. See also Bee, *Crosscurrents Along the Colorado*, xviii-xix. For the estimated river-mileage between Needles, California, and Yuma, Arizona, see Castetter and Bell, *Yuman Indian Agriculture*, 2.

encountered the Quechans. Edward Castetter and Willis Bell suggested the possibility that the Quechan villages, at the time of the latter explorer's visit, may have been situated exclusively west of the confluence area, noting that "it is known that Oñate did not cross the [Colorado] river." C. Daryll Forde's work relating to the tribe provides further support for this theory. Forde stated that the Quechans had "always been most numerous" on the "west bank" of the Colorado, while also noting that the Oñate expedition did not travel to that side of the river.³

Given the fluctuating nature of Native American settlements and tribal group identities along the lower Colorado during the sixteenth and seventeenth centuries, however, it is conceivable that the Quechan Indians had simply not yet coalesced into a distinguishable tribal unit by the early 1600s. Castetter and Bell make reference to this idea, noting the possibility that the Quechans "had not yet come into existence as a distinct entity" by the time of Oñate's visit. Forde, meanwhile, proposes that the Quechans may have pushed out the long-since-vanished Ocaras people—a group likely related to either the Pima or Maricopa, whom Oñate reported as living within the eastern portion of the Colorado-Gila region—from the confluence area sometime during the seventeenth century.⁴

While it remains unclear exactly when the Quechans came into being as a distinct tribal entity and when they first began occupying lands as far south as the Colorado-Gila

³ Castetter and Bell, *Yuman Indian Agriculture*, 48-49; and Forde, "Ethnography of the Yuma Indians," 98-99.

⁴ Castetter and Bell, *Yuman Indian Agriculture*, 48-49; and Forde, "Ethnography of the Yuma Indians," 98-99. See also Forbes, *Warriors of the Colorado*, 35-36; and Bee, *Crosscurrents Along the Colorado*, xviii-xix. Note that Bee appears to stay out of the debate, simply stating anthropological evidence shows that all Yuman tribes—including the Quechans—are likely "the result of an amalgamation of smaller bands between the thirteenth and eighteenth century," a process that was "fostered in part by nearness to each other along river bottoms during the horticultural seasons, by similarity of languages, and by the effects of incessant warfare."

confluence, the extant records of Spanish exploration into the region indicate that they had a firm hold on this area by the turn of the eighteenth century, at the latest. In 1701, nearly 100 years after the previous Spanish foray into this part of the lower Colorado basin, Father Eusebio Kino completed a missionary expedition down the Gila River to its junction with the Colorado, encountering several Quechan villages along the way. Kino, who later explored the southernmost reaches of the Colorado, was impressed with the sheer size of the river and the fertility of the lands along its banks, noting the “very rich and abundant fields” that existed within the “pleasant lands and valleys of these new conquests and conversions.” He also informed the Spanish crown about the “crops of wheat, maize, frijoles, chick-peas, [and] beans” that abounded throughout the lower Colorado basin.⁵

Despite his favorable impression of the indigenous fields and general agricultural potential of this region, Kino provided scant information about the specific farming and subsistence practices of newly encountered Indians, such as the Quechans. Moreover, Forde points out that Kino, like Oñate before him, failed to cross the Colorado River at the confluence area, creating the impression that the majority of Quechan villages were located east of the river, along the lower Gila. That the tribe did, in fact, have settlements west of the confluence at this time, however, is reflected in Kino’s letters, most notably where they indicate that “some three hundred” Quechans swam across the Colorado to greet his party, upon their arrival. Since Kino spent little time discussing the farming methods employed by the tribe—or even visiting all of their villages—the records of his

⁵ Herbert Eugene Bolton, ed., *Spanish Exploration in the Southwest, 1542-1706* (New York: Charles Scribner’s Sons, 1916), 444-45, 450, 457-59.

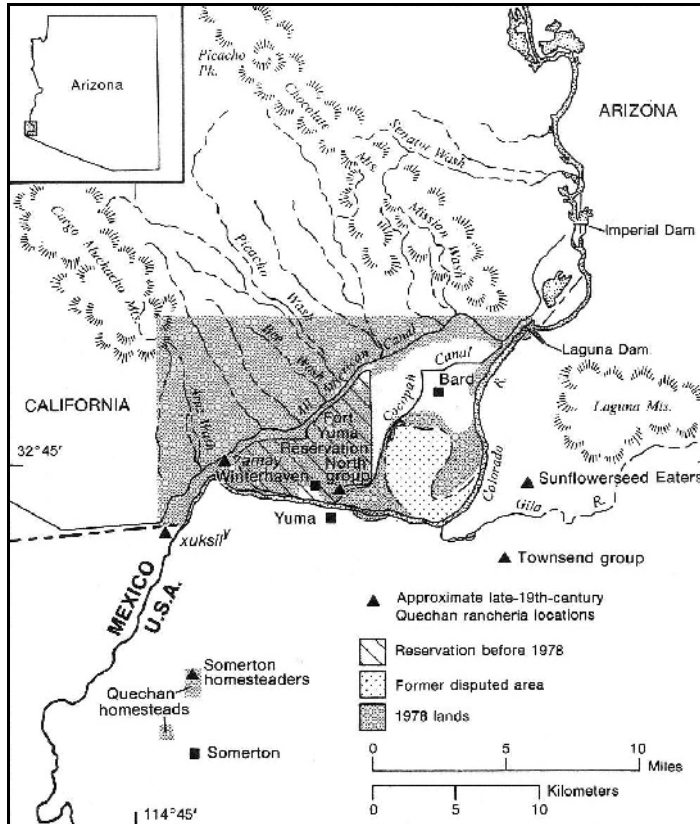
travels into the confluence area are valuable mainly for confirming that they had gained a secure foothold in this region by the early 1700s.⁶

The first detailed account of Quechan subsistence practices would not surface for another 70 years after Kino's visit to the Colorado-Gila junction. The diaries kept by members of Father Francisco Garcés's missionary expedition in 1771 and Captain Juan Bautista de Anza's 1774-1776 campaign to secure a route to Spain's newly opened mission in Monterey, California, increase our knowledge of the Quechan Indians exponentially. As Castetter and Bell point out, the Quechans "figure prominently" in these records, since the explorers needed the tribe's cooperation in fording the wide and often-difficult-to-cross Colorado River. Moreover, after the Anza expedition marched west of Quechan territory en route to the California coast, Garcés and several members of his party remained there, in an attempt to establish two ill-fated missions in the heart of Quechan territory.⁷ (Map 1)

Perhaps the most extensive depiction of the Quechans' traditional agricultural practices is that included in the diary of Father Pedro Font, Garcés's chaplain who accompanied the Anza expeditions into the confluence area in the early 1770s. After spending time at the Quechans' villages in November and December 1775, Font wrote a

⁶ Forde, "Ethnography of the Yuma Indians," 99. Herbert Bolton, in his preface to the journals of the Juan de Bautista de Anza expeditions of 1774-1776, provides further evidence of the secure grasp the Quechans had on the confluence area by the eighteenth century. In fact, Bolton argued that Anza could not have accomplished his mission without the Quechans' assistance, since they "controlled the gateway to California." See Herbert Eugene Bolton, trans. and ed., *Anza's California Expeditions*, vol. 1, *An Outpost of Empire* (Berkeley: University of California Press, 1930), ix.

⁷ Castetter and Bell, *Yuman Indian Agriculture*, 32-33. For a lengthy discussion about the establishment of the two Spanish missions in Quechan territory in 1780 and their destruction the following year by the Indians, see Forbes, *Warriors of the Colorado*, 175-205. As Castetter and Bell succinctly wrote, "[T]he period of Franciscan padres on the lower river came to an abrupt end July 17, 1781, when the Yuma attacked the missions, killing all the Spaniards present including Garcés himself." The Quechans rebuffed subsequent Spanish efforts at re-conquest, thereby avoiding the fate of the Pueblo Indians following their revolt 100 years earlier. Note, too, that one of the missions established by Garcés in 1780—Puerto de la Concepción—was located at the same site later occupied by the American military garrison of Fort Yuma and, still later, by the Fort Yuma Indian Agency.



Map 1: Quechan Aboriginal Territory, published in Bee, "Quechan," in *Handbook of North American Indians*, vol. 10, 87.

detailed portrait of the tribe that included a clear picture of their agricultural lands and farming methods, as they existed under aboriginal conditions. Discussing the flooding patterns of the Colorado River, Font indicated that, each year, the river, fed by melting snows in the mountains far to the north, "gradually" flooded the lowlands along the river. Owing to the river's slow rise and fall, Font claimed that "the water spreads over [the bottom lands] so gently it does not injure them." He also noted that the Colorado's waters were "fresh and good, and are not salty like those of the Gila River," making them ideal for agricultural use.⁸

⁸ Font, "Complete Diary," in Bolton, trans. and ed., *Anza's California Expeditions*, vol. 4, 98-99. For basic background information about the early 1770s expeditions into Quechan territory, see Castetter and Bell, *Yuman Indian Agriculture*, 32-33. Bolton was particularly impressed with Font's diary, claiming that

Relying on the waters furnished by these annual floods, the Quechans planted crops such as corn, beans, melons, gourds, and wheat, from which they obtained “abundant harvests.” Noting that these cultivated crops ensured that they had “plenty to eat,” Font indicated that the Quechans also gathered “a great quantity” of wild plants, such as screwbeans and mesquite, to supplement their food supply. Font attributed such gathering, though, to a desire for “variety,” rather than “necessity.” Indeed, he marveled at the Quechans’ relative agricultural prosperity compared with other tribes he had seen, asserting that they “may be reputed as the most fortunate, rich, and prosperous of them all.”⁹ Anza confirmed Font’s depiction, noting the “abundance” of the Quechans’ crops and claiming that their wheat fields were “so good and well sprouted that the best irrigated wheat in our country does not equal it.” Indeed, Anza expressed a desire that all the tribes the Spanish had encountered “would devote themselves as industriously to agriculture as these.”¹⁰

Font’s 1775 journal also provided a detailed portrait of the farming techniques employed by the Quechans to secure their “abundant harvests.” Prior to the annual flooding of the Colorado, the Indians cleared brush and “rubbish” from plots of land they intended to plant that year. According to Font, floodwaters gradually began to rise “in

he was a “superb” chronicler of events and that his diary of the 1774-1776 Anza expeditions “is unsurpassed in all the long history of exploration in the Western Hemisphere.” See Bolton, trans. and ed., *Anza’s California Expeditions*, vol. 1, viii.

⁹ Font, “Complete Diary,” in Bolton, trans. and ed., *Anza’s California Expeditions*, vol. 4, 98-99, 108-110. The full list of crops cultivated by the Quechans, according to Font, were as follows: “The crops raised by the Indians are wheat, maize, which they call Apache maize and which matures in a very short time, orimuni beans, tepari beans, cantaloupes, watermelons, and very large calabashes of which they make dried strips ... and seeds of grasses.” In addition, Castetter and Bell argue that Font’s assertion that the Quechans were “the most fortunate, rich, and prosperous” tribe in the region was particularly “revealing,” since that Font had previously visited “the prosperous Pima Indians on the Gila.” See Castetter and Bell, *Yuman Indian Agriculture*, 67-68.

¹⁰ “Anza’s Complete Diary, 1774,” in Herbert Eugene Bolton, trans. and ed., *Anza’s California Expeditions*, vol. 2, *Opening a Land Route to California* (Berkeley: University of California Press, 1930), 51-52.

March and April,” swelling over the river’s banks until June, “when it begins to go down, and then every day it gets smaller until the end of the year.” As the floodwaters receded, Quechan families descended from higher ground into the recently overflowed areas, carrying wooden digging sticks, with which they would “make holes in the earth, plant their seeds, and do nothing else to it.”¹¹ Father Tomás Eixarch, who spent the winter of 1775-1776 in Quechan territory after Anza left the area en route to the coast, provided more precise information about the Colorado’s floods, noting that the river began rising as early as mid-February and gradually rose and fell until its final inundation of the bottom lands during May and early June. On the subject of planting and cultivation techniques, though, Eixarch’s account added little to Font’s earlier depiction.¹²

Because they employed so-called “crude” cultivation methods, which did not demand highly-labor-intensive efforts, many Spanish observers considered the Quechans “lazy,” even as they expressed awe at their agricultural production. In Font’s journal, for example, he accused tribal people of being “very lazy” and claimed they would “reap much larger harvests” if they simply exerted greater effort. He considered this unlikely to occur, however, since the Quechans appeared “content” with simply “provid[ing] themselves with plenty to eat” and since their well-watered and naturally fertilized lands allowed them to reap harvests “with little trouble.” The fecundity of the bottom lands near the Colorado-Gila confluence led others, like Eixarch, to speculate about the

¹¹ Font, “Complete Diary,” in Bolton, trans. and ed., *Anza’s California Expeditions*, vol. 4, 98-99, 108.

¹² “Eixarch’s Diary of His Winter on the Colorado, 1775-1776,” in Herbert Eugene Bolton, trans. and ed., *Anza’s California Expeditions*, vol. 3, *The San Francisco Colony* (Berkeley: University of California Press, 1930), 347-48, 356-57, 371-77. See also Forde, “Ethnography of the Yuma Indians,” 108.

potential crop yields that might be obtained by employing “modern methods” of irrigation and agriculture.¹³

While the late-1700s journals of individuals such as Font, Eixarch, and Anza contemplated the application of “modern” farming techniques to Quechan lands, they also provided crucial information about the Indians’ traditional, subsistence-based agricultural methods. Using these early accounts—as well as later reports by American military officials and their own fieldwork among the Quechans—anthropologists C. Daryll Forde, Edward Castetter, and Willis Bell have been able to construct a thorough portrait of the tribe’s aboriginal subsistence patterns and farming practices. Published 20 years apart, in 1931 and 1951 respectively, both Forde’s “Ethnography of the Yuma Indians” and Castetter and Bell’s *Yuman Indian Agriculture* revealed that cultivated agriculture represented a significant component of Quechan subsistence strategies throughout the eighteenth and nineteenth centuries. In painting this picture of the Quechans’ traditional lifeways, the work of these anthropologists provides a crucial counterpoint to the post-reclamation era on tribal farmlands.¹⁴

As Font and Eixarch indicated in their accounts, the principal crops raised by the Quechan Indians included several varieties of maize, teparies, black-eyed beans, semi-cultivated wild grasses, and pumpkins, as well as Old World crops such as watermelons, muskmelons, and winter wheat. The latter were likely obtained from other tribes who had earlier contact with Spanish explorers. The Quechans’ primary planting period occurred in late June and early July, after tribal members began to see the Colorado’s floodwaters

¹³ Font, “Complete Diary,” in Bolton, trans. and ed., *Anza’s California Expeditions*, vol. 4, 108; and “Eixarch’s Diary,” in Bolton, trans. and ed., *Anza’s California Expeditions*, vol. 3, 371-77. See also Forde, “Ethnography of the Yuma Indians,” 108.

¹⁴ Forde, “Ethnography of the Yuma Indians,” 88-117; and Castetter and Bell, *Yuman Indian Agriculture*, 47-52, 94-178.

receding, as well as observing the constellation Pleiades rising in the east at dawn. Planting began once the fields were free of standing water and when the mud in the recently inundated bottom lands “began to cake at the surface.” Beginning with watermelons—which “formed the first planting,” according to Forde, and thus “offered a welcome green diet” just prior to each year’s harvest—Quechan farmers used wooden “dibbles,” or planting sticks, to dig holes in the still-damp soil, into which they sowed their seeds. After planting watermelons, tribal members continued with the remaining crops, often sowing beans and melons between rows of corn, while segregating plants such as pumpkins in “special plots.”¹⁵

In addition to this yearly summer planting, the Quechans sometimes were able to sow “[a] little corn and some melons” in February, as well as planting winter wheat after their beans and melons had ripened at summer’s end. Regarding their periodic February planting, Forde indicates that this transitory occurrence depended almost entirely on the region’s “slight and unreliable spring showers.” When such showers did occur, the Quechans could harvest two corn crops, since they seeded the rain-dampened bottom lands with a fast-ripening variety of corn known as “Apache maize,” which took only two months to mature. In addition, during this period just before the annual spring floods, the Indians harvested the wheat crops they had planted the previous fall. Quechan farmers

¹⁵ Forde, “Ethnography of the Yuma Indians,” 107-12; and Castetter and Bell, *Yuman Indian Agriculture*, 94-130. Forde quotes one of his informants, Hipa Norton, regarding the importance of constellations in determining planting times. In particular, Norton, who was 66 at the time of Forde’s fieldwork, indicated that lands were typically ready for planting “when the Pleiades first appeared in the east in the morning (late June)” and that seeds needed to be in the ground before the constellation Orion “first appeared at dawn, for plants sown later would not get enough water from the ground.”

also added the cultivation of wild grasses—generally in “less fertile” areas—to the already-extensive list of crops they planted, tended, and harvested throughout the year.¹⁶

Prior to their annual planting, Quechan families undertook an extensive amount of work to identify and clear fields for cultivation. When selecting lands for planting, tribal members most often sought out areas that displayed the following characteristics: open lands that contained “few if any trees”; lands that did not support the growth of salt grass, nor exhibit the “frosty appearance” or salty taste of saline lands; and, last, areas over which the river’s annual floods would flow more rapidly, since stagnant water rendered soils “heavy and subject to bad cracking.” Once they selected cultivable plots, tribal members used a combination of fire and hand-clearing techniques to ready their soon-to-be-flooded fields for planting. As Castetter and Bell succinctly put it, they “sought out a suitable place, then in spring broke down and burned all shrubby growth,” an annual activity that consisted largely of “gathering and burning the weeds and trash” that had accumulated on the lowlands.¹⁷

These authors also revealed that the Quechans further altered and managed the river-bottom landscape where they resided by implementing basic irrigation techniques. Discussing this “modified method of irrigation,” Castetter and Bell stated that they found, during their late-1930s fieldwork, “[f]airly large-sized swales,” angling off “from near the edge of the river and just a little above river level,” which their informants told them “ran for long distances over most of their territory.” Quechan informants also helped

¹⁶ Forde, “Ethnography of the Yuma Indians,” 107-13; and Bee, *Crosscurrents Along the Colorado*, 3-4. Castetter and Bell provide a broad description of the typical planting and water-use practices common among the tribes of the lower Colorado River basin, as well as providing some, more detailed information for specific tribes, such as the Quechans. Their depiction of these practices does not differ materially from Forde’s. See Castetter and Bell, *Yuman Indian Agriculture*, 131-32, 144-56.

¹⁷ Castetter and Bell, *Yuman Indian Agriculture*, 139-41. Castetter and Bell also differentiated between the “original clearing” of a selected plot and the “annual clearing” that occurred on previously planted fields, with the former involving more extensive work than the latter.

reconstruct how this irrigation system operated. During low-water periods in the winter months, tribal farmers built a series of earthen dams across these swales, as well as log dikes in the river bed, which fed water into the swales during the Colorado's annual floods. The system began functioning once flood waters entered the swales:

When the first section of the swale had filled, it overflowed and irrigated adjacent land. Then the first earth dam was broken and the water filled the section, and so on until a considerable amount of land was irrigated. In some years the Indians were able to get water into these swales, in others not ... but at best this was an inefficient method of irrigation, as lands were not leveled and therefore the soil was watered very unevenly.¹⁸

Although Castetter and Bell conducted their fieldwork on Quechan lands well after the introduction of modern irrigation systems and Anglo farming practices to the region, their informants told them this swale-based irrigation was “an ancient practice.” The authors also claimed that they were “not at all convinced that it is a historic development,” noting a similar practice of constructing “rudimentary diversion dams” among the Western Apaches. Despite the apparently aboriginal origin of the Quechans’ “modified” irrigation system, Castetter and Bell were careful not to overstate its importance. Discussing the general picture of pre-contact agricultural practices along the lower Colorado, the authors asserted that even the atypical example of the Quechans did not reflect “conventional artificial canal and ditch irrigation.” Moreover, they drew a sharp contrast between the basic irrigation techniques of the lower Colorado tribes and those of the Pima Indians of southern Arizona, who displayed a far more sophisticated “irrigated cultivation.”¹⁹

¹⁸ Castetter and Bell, *Yuman Indian Agriculture*, 133-34. The authors stated that this swale-based irrigation system functioned best when “the level of the river rose somewhat during the winter or early spring months.” They also indicated that, in some years, “water overflowed from the river into the swales without the necessity of constructing a dam.”

¹⁹ Castetter and Bell, *Yuman Indian Agriculture*, 131-34.

The most important factor in traditional Quechan agriculture, by all accounts, was the Colorado River itself. The river's silt-laden annual floods not only provided water to the lands on which the tribe planted its crops, but also fertilized them naturally, creating what Castetter and Bell referred to as an agricultural "oasis" within an otherwise-arid landscape. Anthropological studies reveal that the Colorado's annual silt load was "far higher than that of the Mississippi or the Nile," as well as being nitrogen-rich and "exceptionally free from alkali salts." These unique conditions allowed aboriginal agriculture throughout the lower Colorado River basin—including on Quechan lands at the river's junction with the Gila—to flourish. Indeed, Castetter and Bell marveled that tribal people throughout the region had "cultivated the bottom lands for hundreds of years without adding manures or any other kind of fertilizer to the soil." This, they argued, was possible "only because of the fertilizing elements deposited by the annual overflow."²⁰

The river's yearly flooding also had significant impacts on the location and distribution of Quechan fields. Because the Colorado flooded with such regularity and at such great distances from its regular channel—Anza estimated that the river inundated lands "half a league beyond each bank of the river, and in some places twice that distance," or nearly three miles—it continually altered the landscape through which it flowed. These "marauding" annual floods made it impossible to establish permanent fields, "since the waters changed the contour of the land from year to year." At times, floodwaters would transform a once-productive plot into an "uncultivable" area the

²⁰ Forde, "Ethnography of the Yuma Indians," 88-91; and Castetter and Bell, *Yuman Indian Agriculture*, 11-13, 131-32. Discussing the chemical components that contributed to the soil-fertilizing content of the Colorado's floodwaters, Castetter and Bell indicated that, in addition to nitrogen, the river also carried large amounts of potassium and phosphorus. However, nitrogen and other "organic matter" constituted the most "significant substances in the flood waters," since these elements represented "the chief deficiencies of the desert soils" in the region.

following year. The river's floods, thus, required constant adaptations by the Quechans in their efforts to maintain a viable livelihood in an ever-changing agricultural landscape.²¹

Annual flooding also determined, to a great extent, the settlement patterns of the Quechans themselves. Since they relied on the bottom lands lying within the Colorado's floodplain to raise their crops, tribal members tended to live much of the year in temporary, open-frame houses near the banks of the river, extending north and south of the confluence area, as well as eastward along the Gila. During the annual flooding period, Quechan families abandoned these habitations, moving their homes away from the about-to-be-inundated floodplain into the "nearby uplands" until the river began to recede. Because of this, Forde noted that many Quechan settlements were located "near projecting spurs of the mesas which approach closely to the river," thereby necessitating less significant seasonal movements between habitation areas. The continual shifting of tribal settlements and planting areas reflected the highly adaptive nature of the Quechans' traditional livelihood, which required almost-constant responses to and alterations of an often-unpredictable environment.²²

The tribe's ability to undertake such significant and recurrent adaptations to the lower Colorado River landscape lay in the structure of the Quechans' traditional family unit. As anthropologist Robert Bee has shown, these "composite" families—which consisted of both parents and their children, as well as grandparents, aunts, uncles, and cousins—formed the "basic cooperative group" for accomplishing agricultural tasks, including the seasonal migrations necessitated by the river's annual floods. Although

²¹ Castetter and Bell, *Yuman Indian Agriculture*, 38-39. For estimates of the mileage contained in a typical league, see Bolton, trans. and ed., *Anza's California Expeditions*, vol. 4, vii, where he states that "Anza's leagues" were "generally about three miles," while Font's were typically "about 2.6 miles."

²² Forde, "Ethnography of the Yuma Indians," 100-102, 120; and Bee, *Crosscurrents Along the Colorado*, 4, 22-23.

earlier anthropological studies indicated that it was common among the region's tribes to segregate agricultural duties by gender, Bee's work revealed that, among the Quechans, "the division of labor was by no means strictly sexual." While men generally performed "heavier work" such as clearing and digging and women were often responsible for sowing seeds and storing harvests, Bee argued that "both women and men could work at agricultural chores of their choosing."²³

These extended family units also played a fundamental role in the Quechans' other essential subsistence activity, outside of cultivated agriculture—gathering wild foods. Of primary importance were mesquite and screwbeans, the "sweetish pods" of which tribal members typically "ground into a pulp, dried, then ground into flour and mixed with water to make cakes that could last indefinitely." The long-lasting nature of the foods prepared from wild plants made them especially important during pre-harvest periods, when cultivated crops were generally unavailable, and during other times of intermittent food shortage. Although both mesquite and screwbeans grew abundantly throughout the lower Colorado's floodplain, the more-drought-resistant mesquite trees spread further into the uplands, making their pods more consistently available and, thus, more popular among the Quechans. Other wild plants gathered by the tribe included seeds such as pigweed, quail brush, barnyard grass, and ironwood, as well as wolfberries and the roots of desert lilies and cattails. Anthropologists, though, considered these other

²³ Bee, *Crosscurrents Along the Colorado*, 4-5; and Bee, "Quechan," in *Handbook of North American Indians*, vol. 10, 87-89. Bee argued that the Quechans' "extended family household[s]" represented "an optimal unit of agricultural exploitation," since they "provided a cooperating work force large enough to lessen the amount of heavy individual labor" but remained "small enough to reduce conflict over personal versus group economic interests."

wild foods to be “casual adjuncts” to the more important mesquite and screwbeans, indicating that they were “employed largely for variety.”²⁴

Gathering wild plants was a cross-generational activity for the Quechans. Once mesquite beans started to ripen in mid-June, women and children began spending entire days—and, later in summer, several-day outings, accompanied by men for protection—gathering these and other wild-plant foods. These activities continued through July and August, when screwbean pods ripened, and extended into the early fall. Tribal members collected their gathered produce in “large carrying nets,” drying it on rooftops upon their arrival home. Once dried, the gathered plants were stored in large, cylindrical bins, situated near the uplands where most of the tribe’s gathering activities took place. As with their cultivated fields, the Quechans did not acknowledge individual ownership of mesquite groves or other wild plants, unless they were located near established village sites. That said, family groups often returned to the same general areas for their annual gathering activities.²⁵

While anthropologists have been unable to determine precisely the proportion of cultivated crops to wild-grown foods in the Quechan diet during aboriginal times, it is clear that their agricultural activities were “no mere accessory to the collecting of wild fruits.” Spanish accounts of “abundant” harvests of corn, beans, pumpkins, and melons reveal the importance of farming among the Quechans and the significant degree to

²⁴ Bee, *Crosscurrents Along the Colorado*, 4; and Castetter and Bell, *Yuman Indian Agriculture*, 179-211. Castetter and Bell’s informants told them that “no other wild food compared in importance” with mesquite and screwbean pods, indicating that these plants “virtually supplied the living through the winter and until the next cultivated crop was ready.” These authors’ work also contains an extensive list of wild seeds, fruits, and roots gathered and eaten by the tribes of the lower Colorado River basin. For this list and a summary discussion of the use of these wild plants by each group, see Castetter and Bell, *Yuman Indian Agriculture*, 187-211.

²⁵ Castetter and Bell, *Yuman Indian Agriculture*, 179-86; Forde, “Ethnography of the Yuma Indians,” 115-17; and Bee, *Crosscurrents Along the Colorado*, 4.

which they depended on it for their subsistence. These accounts are supported by mid-nineteenth century correspondence of American military officials, who issued equally favorable reports about the Quechans' agricultural endeavors. In their effort to estimate the relative amounts of cultivated agriculture and gathering activities among the lower Colorado River tribes, meanwhile, Castetter and Bell suggested that farming likely comprised anywhere from one-third to one-half of the Quechan Indians' aboriginal subsistence.²⁶

The exact percentages of cultivated agriculture and wild-plant gathering within the tribe's traditional subsistence strategies likely changed from year to year, as well. As anthropologists have indicated, the annual overflow of the Colorado River was sometimes smaller than average and, in rare instances, did not occur at all. Obviously, years of low flooding led to lower crop yields, which, in turn, required a greater reliance on wild plants. In contrast, during years of adequate flooding—which were far more typical than low-flood years in pre-contact times—tribal members enjoyed the fruits of their more abundant yields and adjusted their gathering activities accordingly. Indeed, Forde pointed out that gathered plants such as mesquite and screwbeans were “very important” to the Quechan food supply, since they “insured against starvation in years of irregular flood.” Similarly, Bee suggested that gathered plants “were probably the main source of sustenance when there were crop failures or occasional food scarcities between harvests.”²⁷

²⁶ Castetter and Bell, *Yuman Indian Agriculture*, 73-74, 179-81; Forde, “Ethnography of the Yuma Indians,” 115-16; and Bee, *Crosscurrents Along the Colorado*, 4. Note, however, that Castetter and Bell's rough estimates of cultivated-to-gathered subsistence activities are “as of the middle of [the nineteenth] century,” and, thus, may reflect the impact of Euro-American exploration and settlement from the 1700s through the mid-1800s.

²⁷ Castetter and Bell, *Yuman Indian Agriculture*, 7-8, 73-74, 179-81; Forde, “Ethnography of the Yuma Indians,” 108, 115-16; and Bee, *Crosscurrents Along the Colorado*, 4. Castetter and Bell note several

Despite the yearly fluctuations in the exact proportions of the Quechans' farming and gathering activities, their overall subsistence strategies remained quite constant. They relied on a flexible combination of cultivated agriculture and wild-food gathering, which they modified according to the changing conditions of the landscape they inhabited. Anthropologists have situated the tribe's agricultural efforts within the larger "maize-beans-pumpkins complex" that dominated much of the present-day Southwest prior to Anglo contact. While the Quechans' aboriginal farming output may not have matched that of other agricultural tribes like the Pima and Pueblo Indians, they supplemented it with an impressive array of gathered plants that helped them subsist even in years of low cultivated-crop yields. In so doing, they displayed a keen ability both to respond to and to actively manage the often-harsh, desert environment in which they resided, adapting their subsistence strategies to often-changing conditions.²⁸

These traditional subsistence practices also exhibited a marked degree of stability from the late eighteenth century to the mid-nineteenth century. For roughly 70 years after the destruction of the Spanish missions near the confluence of the Colorado and Gila rivers, the Quechans' indigenous lifeways experienced surprisingly little disruption. Although "various trappers, adventurers, and military detachments" passed through their territory during the early 1800s, these migrations had only slight impacts on the tribe.

instances when the Colorado's floods were either insufficient for the Quechans to produce large crops or did not occur at all. These included the years 1775, 1851, and 1888. However, the authors also indicate that years of no overflow were "not common" prior to large-scale non-Indian settlement in the region, noting that "when whites began to settle on some of these Indian lands [throughout the lower Colorado] and to utilize river water for irrigation, the overflow available to the Indians ceased to be adequate."

²⁸ Castetter and Bell, *Yuman Indian Agriculture*, 97-99; and Forde, "Ethnography of the Yuma Indians," 113. Comparing the Quechans' agricultural activities with broader aboriginal agricultural trends throughout the Southwest, Forde claimed that the Quechans' farming could be "regarded as an impoverished version of the Pueblo type of agriculture." For discussions about the importance of the "maize-beans-pumpkins complex" and the pre-contact agricultural practices of tribes such as the Pima and Pueblo Indians, see Hurt, *Indian Agriculture in America*, 42-54; and Pisani, *Water and American Government*, 193.

This situation changed quickly, though, after the United States' annexation of the present-day Southwest in the late 1840s and early 1850s. The rush of gold seekers and other emigrants to California and the attendant establishment of military posts throughout the region brought an increasing, non-Indian presence into the area that would fundamentally affect the Quechans' environment and aboriginal subsistence patterns in the coming decades.²⁹

The most concrete development, in this regard, was the construction of the military post of Fort Yuma, just west of the Colorado's junction with the Gila, between 1850 and 1852. Its establishment signaled the commencement of the American government's dominant influence over the lands and livelihoods of the Quechan Indians. In just over 30 years, tribal members would see reservation boundaries formally plotted over their lands. And, within two generations, Quechan farmers would witness the construction of a modern irrigation system that would forever alter the flooding and fertilizing patterns of the river around which they centered their traditional livelihood. The presence of the military post—and the non-Indian influx it encouraged and safeguarded—also led to additional observations of Quechan farming practices, as well as speculation about the agricultural prospects of the fertile bottom lands they occupied. The first such report—written by the fort's commander, Samuel Heintzelman, in July 1853—offered an account of Quechan agriculture that was, perhaps, most notable for its similarity to those written by Spanish missionaries and explorers in the 1770s.³⁰

Like Font, Anza, and Eixarch before him, Heintzelman portrayed a scene of relative agricultural abundance on Quechan lands. He claimed that the “Cu-cha-no[s]”

²⁹ Bee, *Crosscurrents Along the Colorado*, 2.

³⁰ Bee, *Crosscurrents Along the Colorado*, 2-4; 14-20; Bee, “Quechan,” in *Handbook of North American Indians*, vol. 10, 94-95; and Forde, “Ethnography of the Yuma Indians,” 110.

lived exclusively along the Colorado, with villages extending an estimated “sixty miles above its junction with the Gila” and “forty or fifty miles” below the confluence. Discussing the “excellent land” occupied by the tribe, the military commander indicated that the Colorado’s floodplain was “wide and fertile, covered with a heavy growth of arrow wood, grease wood, cotton wood, willow of three varieties, and mesquite of two, the flat pod and screw bean.” He also noted the “very muddy” nature of the river, which gave it a “yellowish brown” hue and contributed to the deposition of an “immense deal of earthy matter” onto nearby lowlands, during its annual spring overflow.³¹

Heintzelman’s representation of the Quechans’ cultivation practices also echoed that of his Spanish forebears. He indicated that, in late June or early July “or so soon as the waters of the annual rise commence to subside,” the Indians seeded the Colorado’s recently flooded bottom lands, noting that “[n]o vegetables will grow beyond the influence of the overflow.” According to Heintzelman, the principal crops sown during this early-summer planting season included “water melons, musk melons, pumpkins, corn and beans.” He also painted a brief, but detailed, portrait of the Quechans’ agricultural methods in the mid-1800s—a portrait that bore an uncanny resemblance to that depicted by the Spanish in the late eighteenth century:

Their agriculture is simple. With an old axe (if they are so fortunate as to possess one), knives and fire, a spot likely to overflow is cleared. After the waters subside, small holes are dug at proper intervals, a few inches deep, with a sharpened stick, having first removed the surface for an inch or two, as it is apt to cake. The ground is tasted, and if salt the place rejected; if not, the seeds are then planted. No further care is required but to

³¹ Captain S.P. Heintzelman, Fort Yuma, to Major E.D. Townsend, Assistant Adjutant General, July 15, 1853, in House, *Indian Affairs on the Pacific*, 34th Cong., 3d sess., 1857, H. Ex. Doc. 76, serial 906, 36-38.

remove the weeds which grow most luxuriantly wherever the water has been.³²

In addition to this early-summer planting, the Quechans sowed wheat in the fall for spring harvest, as well as growing “grass seed for food.” Heintzelman also noted the importance of gathered plants, such as mesquite and screwbeans, in the Quechans’ diet. His discussion about the preparation of the wild foods that the tribe gathered and the grasses they cultivated indicated that the two processes were almost identical. Tribal members ground gathered and cultivated seeds, pods, and roots into flour, to which they added water, then “kneaded into a mass, and then dried in the sun.” Once dried, this meal could keep for an entire year, providing the Indians with an important supplement to their food supply between annual harvests. Relying on this combination of cultivated and wild foods, the Quechans, thus, were able to support themselves with relatively little difficulty—a situation that had changed little since the Spanish missionary period.³³

But, while Heintzelman’s July 1853 report revealed a remarkable level of consistency in the Quechans’ traditional subsistence practices, it also portended many of the wholesale changes that would affect the tribe’s lands in the coming years. For one, Heintzelman not only noted the subsistence-based crops grown by the Quechans, but also speculated about the types of market-based agricultural goods that might flourish in the confluence area. In addition to crops such as wheat and corn, which the Indians were already cultivating, the military commander believed that cotton, sugarcane, and rice could grow in the region. Moreover, he deemed the area’s climate and soils to be “well adapted to the cultivation of the vine, fig, and tropical fruits.” Heintzelman also hoped to encourage a more market-oriented agriculture among the Quechans, noting that they had

³² Ibid., 36-37.

³³ Ibid., 37, 49.

already “made great preparations to supply us with vegetables” and that they would soon “become accustomed to get from us things they now consider luxuries, but which will become necessities.”³⁴

Equally important for the future of Quechan lands were Heintzelman’s discussions about the imminent development of transportation networks through the region. After noting the protracted efforts to establish the garrison at Fort Yuma—a nearly two-year process that included a brief abandonment of the post in response to reported “threat[s]” from the Quechans—Heintzelman indicated that, by mid-1853, the fort had solidified into “a permanent station” that he deemed the “most important in southern California,” since it protected “the southern route of emigration” into the state. In addition to protecting gold-seeking and land-hungry Americans from the “numerous tribes of warlike Indians” who inhabited the area, Heintzelman stated that Fort Yuma also “command[ed] the passage by land” into Mexico, as well as ensuring the continued expansion of steamboat traffic along the lower Colorado River. He further indicated that others had spoken enthusiastically about the confluence area as a possible “point on the great Pacific railroad.”³⁵

Less than a year after Heintzelman wrote his report, this vision of a railroad route through the lower Colorado basin came one step closer to realization. In early 1854, a crew of topographical engineers, under the command of Lieutenant Amiel Whipple, crossed a wide swath of the United States’ recently acquired lands in the present-day

³⁴ Ibid., 38, 50.

³⁵ Ibid., 34, 38, 51. Heintzelman appeared to hold greater hopes for the expansion of steamboat navigation along the lower Colorado than for the possibility of constructing a railroad directly through Quechan territory. Discussing the ongoing efforts to navigate the river, he indicated that “light draft” boats had already ascended the Colorado, from its mouth “as far as its junction with the Gila.” Heintzelman believed the river was, without question, “navigable to the great canon [Grand Canyon], one hundred and fifty miles (at least) above its junction with the Gila.” Meanwhile, he expressed “doubt” about “whether a route for a railroad can be found along the [Colorado].”

Southwest. The previous year, Congress had ordered this expeditionary force to conduct surveys to determine the “most practicable” route for a transcontinental railroad, stretching from the Mississippi River to the Pacific Ocean. Although Whipple’s party did not pass directly through the confluence area, it did encounter several Quechan Indians during its time spent at the Mohave villages north of Fort Yuma, near the Colorado’s junction with the Bill Williams River.³⁶

These Quechans’ experiences with members of the Whipple expedition served as a further portent of the momentous changes that would confront the tribe in the ensuing decades. When a “great chief” of the tribe arrived at the Mohave villages in late-February 1854, Whipple’s party informed him of their objectives and outlined the “benefits that would result to them from opening a highway for emigrants, or a railroad, and thus creating a market for the produce of their fertile valley.” In response, the unnamed leader promised Whipple that the Quechans would offer the party “every assistance in their power to accomplish the objects of our mission.” The leader also reportedly “expressed his satisfaction at the prospect of establishing a system of trade with the whites.” Along these lines, Whipple indicated that the two Quechans who had previously encamped at the Mohave villages had already witnessed some of the benefits of the “market” system he hoped to introduce to the lower Colorado River tribes, noting the “eager” exchange of cultivated crops and American goods that had occurred only two days before the visit of the “great chief.”³⁷

³⁶ Lieutenant A.W. Whipple, “Report of Explorations for a Railway Route Near the Thirty-Fifth Parallel of North Latitude, from the Mississippi River to the Pacific Ocean,” Part 1, Itinerary, in Senate, *Reports of Explorations and Surveys to Ascertain the Most Practicable and Economical Route for a Railroad from the Mississippi River to the Pacific Ocean*, vol. 3, 33d Cong., 2d sess., 1856, H. Ex. Doc. 78, serial 760, 109-128.

³⁷ Whipple, “Report of Explorations for a Railway Route ...,” Part 1, Itinerary, in Senate, *Reports of Explorations and Surveys...*, 114-17. Whipple reported that there were two Quechan Indians encamped at

Like Heintzelman before him, Whipple remarked optimistically about the future prospects of the lower Colorado region. He stated that the valley lands along this portion of the river could “scarcely be surpassed” for the cultivation of “all kinds of grain and vegetables,” asserting that the Mormons “had made a great mistake in not occupying the valley of the Colorado.” In addition to these crops, Whipple believed that the river’s “wide and rich bottom-lands” could support the growth of cotton, tobacco, as well as “sugar, and possibly rice.” He further pointed out that, in addition to the government’s railroad survey, officials were also undertaking efforts to expand steamboat traffic along the lower Colorado. Taken together, Whipple argued that these potential developments left little doubt that, “before many years pass away, a great change will take place” amongst the Indians living along the lower Colorado River.³⁸

Yet another sign of the imminent transformation of the lands and livelihoods of the region’s tribes came in the winter of 1857-58, when Lieutenant Joseph Ives—who had accompanied Whipple’s party four years earlier—headed a military and scientific expedition to determine the navigability of the lower Colorado. Upon his arrival at Fort Yuma, Ives described its grounds, indicating that the fort was “built upon the west side of the [Colorado] river, on the top of a gravelly spur that extends with a steep bluff to the edge of the stream.” While Ives was not particularly impressed with the garrison itself—

the Mohave villages on February 25, 1854, when his party had established a “market” at which the whites exchanged items such as beads, blankets, and cloth for corn, beans, flour, and “great numbers of pumpkins” with the Indians. Moreover, he indicated that these Quechans had visited the Mohaves in hopes of securing “a fresh supply of provisions,” since they had “exhausted” their supply of cultivated crops “in trade with the troops at Fort Yuma.” After conducting another round of “general trading” two days later, Whipple also commented favorably on the “shrewd” trading skills of the lower Colorado tribes, noting that they “would part with no article without a really valuable compensation.”

³⁸ Whipple, “Report of Explorations for a Railway Route ...,” Part 1, Itinerary, in Senate, *Reports of Explorations and Surveys ...*, 124-25. Regarding the expansion of steamboat traffic, Whipple indicated that “steamers of light draught” were “already carry[ing] supplies for the troops as high as Fort Yuma” and that, from Fort Yuma “to the mouth of Rio Virgen,” the depth of the Colorado appeared sufficient “to allow the passage of small steamboats.”

stating that “Fort Yuma is not a place to inspire one with regret at leaving”—he praised its success in placing the once-feared Quechans “into entire subjection.” Moreover, its presence had encouraged the development of “an anticipated town,” then called Colorado City, which was situated on the east bank of the river, just opposite the fort.³⁹

Although this newly established non-Indian settlement contained “only a few straggling buildings” at the time of Ives’s visit, its prime location across from Fort Yuma and adjacent to the southern emigrant trail’s river crossing ensured its rapid development. Along with the federal government’s ongoing efforts to increase steamboat traffic on the river and to build a transcontinental railway just north of the military post, the almost-certain growth of the town provided further evidence of the looming challenges to the Quechans’ traditional lifeways. Ives’s report also intimated at the likelihood of a further alteration of the river-bottom landscape occupied by the tribe. While he indicated that Quechan farmers had continued their traditional practice of cultivating the Colorado’s fertile lowlands following the river’s annual overflow, Ives stated that he and other members of his expedition firmly believed that the construction of a “well-conducted system of irrigation” on their lands would significantly increase the area’s agricultural productivity.⁴⁰

³⁹ Lieutenant J.C. Ives, “General Report,” Part 1, in House, *Report Upon the Colorado River of the West, Explored in 1857 and 1858 by Lieutenant Joseph C. Ives, Corp of Topographical Engineers*, 36th Cong., 1st sess., 1861, H. Ex. Doc. 90, serial 1058, 7-8, 42-44. Discussing the reportedly aggressive nature of the Quechan Indians toward California-bound emigrants, Ives stated that, “a few years ago,” they were “the most powerful and warlike of the Colorado tribes.” While Whipple had also noted the “many accounts of the hostility of the Yumas” given by “numerous emigrants” in the late 1840s, he was far less convinced of their veracity than Ives. In particular, Whipple claimed that investigations into these emigrants’ accounts revealed that the whites had often been “the first aggressors,” in many instances having stolen “maize belonging to the Indians,” even after the Quechans had offered them “great assistance” in crossing the Colorado. See Whipple, “Report of Explorations for a Railway Route,” Part 3, “Report Upon the Indian Tribes,” in Senate, *Reports of Explorations and Surveys ...*, 18.

⁴⁰ Ives, “General Report,” Part 1, in House, *Report Upon the Colorado River of the West ...*, 42-44, 53-55. Discussing this proposed irrigation system further, Ives claimed that a modern system would “wash out the salt” from those areas within the Colorado’s bottom lands that were reportedly “so charged with alkali

Despite the overwhelming and intersecting forces confronting the Quechans in the mid-1800s, wholesale changes to their aboriginal lifeways did not occur immediately. In part, this was because of the still-uncertain prospects of the developing transportation networks and settlements in the confluence area. In 1862, for example, larger-than-average spring floods washed out the fledgling community of Colorado City. Settlers, though, soon rebuilt the town—later renamed Yuma—and, by the early 1870s, it was flourishing as a major stop for steamboats plying the lower Colorado. Meanwhile, although steam shipments gradually became established on the river by the early 1870s, the railroad’s much-anticipated entry into Quechan territory did not come to fruition until 1877, when the Southern Pacific Railway laid its tracks through Yuma. The halting implementation of these changes during the 1860s and 1870s rendered their overall impact slightly less jarring for the Indians’ traditional livelihood.⁴¹

Additional developments occurred in the early 1880s, however, that posed further challenges to the continuance of the Quechans’ aboriginal subsistence patterns. By 1883, federal officials had concluded that the military’s presence at Fort Yuma was no longer needed to protect the growing town of Yuma or the now-well-established river crossing into California. As Robert Bee stated, the previously feared Quechans’ had become “so docile” that the post simply was deemed “no longer necessary.” As preparations for the closure of the garrison proceeded, President Chester Arthur issued an executive order in July 1883, formally establishing a reservation for the Quechan Indians on the east bank of the Colorado, in what was then Arizona Territory. Situated as it was, the July 1883

as to be unproductive.” Meanwhile, noting the Quechans’ proclivity for farming, Ives claimed that they cultivated “the better portions” of their “fertile” lands and that, despite being “warlike,” they were also “domestic, and seldom leave their own valleys.”

⁴¹ Bee, *Crosscurrents Along the Colorado*, 19. For the date of the completion of the Southern Pacific Railroad through Yuma, see Castetter and Bell, *Yuman Indian Agriculture*, 4.

reservation was located on the opposite side of the river from the majority of the Quechans' villages.⁴²

Whether the initial designation of the Fort Yuma Indian Reservation resulted merely from an error or something more ignoble remains unclear. However, President Arthur promptly revoked the July 1883 order, six months after its promulgation, in response to a series of reports expressing the unified opposition of military officials, Indian agents, and tribal members to the establishment of the reservation on the Arizona side of the river. The new boundaries outlined by executive order on January 9, 1884, encompassed lands wholly on the west bank of the Colorado, where tribal leaders had requested that the reservation be created. In a letter discussing the meetings he held with the tribe in October 1883 about the proposed creation of the Arizona reservation, the agent in charge of the Quechans claimed these meetings were the "largest" of any previous council with the tribe. He further indicated that the Quechans' principal chief, Pasqual, spoke vehemently against the tribe's "removal" from their traditional lands and that the tribal members present voted unanimously against moving to a reservation on the Arizona side of the river.⁴³

In helping to secure this alteration of reservation boundaries, the Quechans avoided the fate of numerous other tribes throughout the West, many of whom were

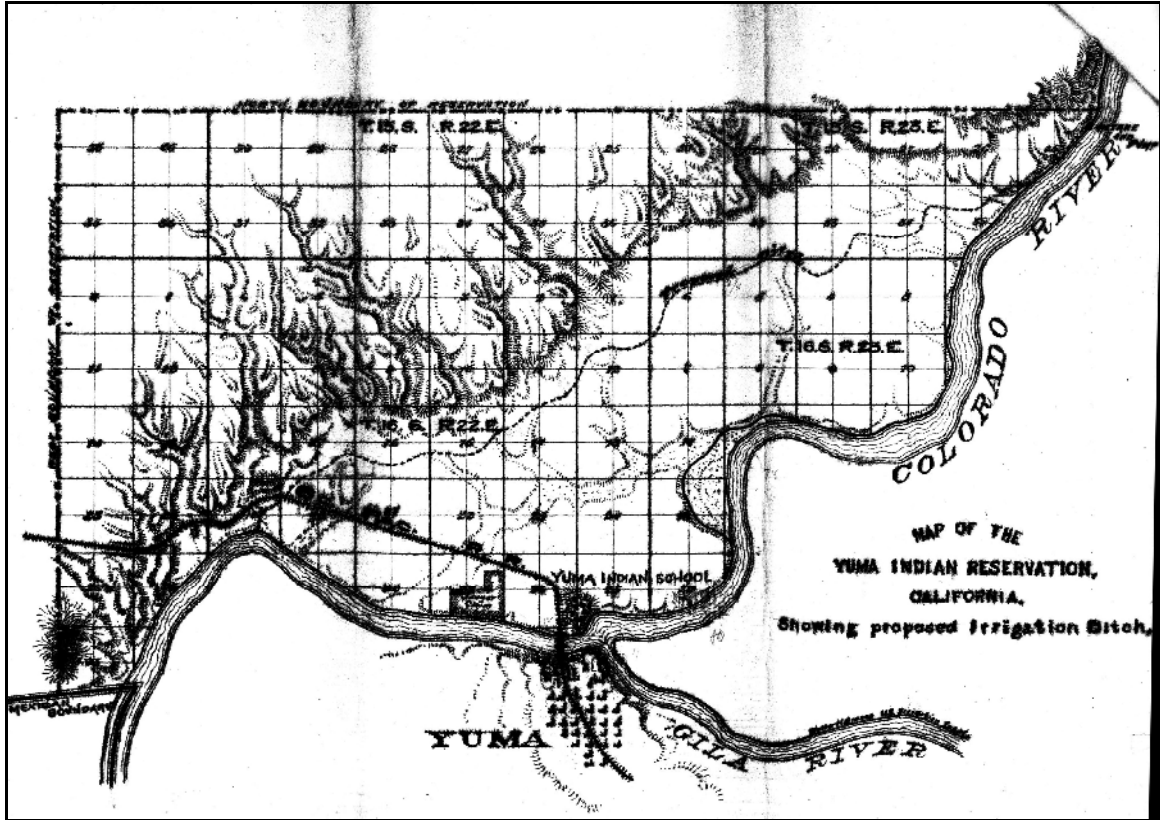
⁴² Executive Order of July 6, 1883, in Charles J. Kappler, ed., *Indian Affairs: Laws and Treaties*, vol. 1 (Washington, DC: GPO, 1904), 831-32; and Bee, *Crosscurrents Along the Colorado*, 19-20.

⁴³ John Clark, Agent, Colorado River Agency, to the Commissioner of Indian Affairs [CIA], November 12, 1883, Letter 21406-1883, Entry 91, Letters Received by the Office of Indian Affairs, 1881-1907 [LR 1881-1907], Record Group 75, Records of the Bureau of Indian Affairs [RG 75], National Archives and Records Administration, Washington, D.C. [NARA I]. For additional letters revealing the widespread opposition to the establishment of the Fort Yuma Indian Reservation on the Arizona side of the Colorado, see Lieutenant George Anderson, Yuma, Arizona, to the Assistant Adjutant General, Department of Arizona, August 20, 1883, Letter 17345-1883; and Brigadier General George Crook, Headquarters, Department of Arizona, to the Assistant Adjutant General, Military Division of the Pacific, August 27, 1883, Letter 17345-1883; both in Entry 91, LR 1881-1907, RG 75, NARA I.

forced to leave their aboriginal lands for reservations located well outside their long-occupied territories. However, as had been the case with the American military post in the 1850s, the creation of the Fort Yuma Indian Reservation reflected the increasing control of the federal government over the lands and livelihoods of the Quechan Indians. The reservation created on the California side of the river in 1884 encompassed roughly 45,000 acres, including a swath of fertile, agricultural lands along the river valley. The remainder of the reservation—encompassing roughly 30,000 acres—comprised non-irrigable mesa lands that lay north and west of the river, stretching from the reservation’s northeastern corner to its southwestern edge.⁴⁴ (Map 2)

Although the changes that occurred throughout the region from the 1850s to the 1880s had rendered the preservation of their aboriginal subsistence practices more difficult, the Quechans were able, by and large, to maintain their traditional lifeways. As they had shown in their responses to the ever-shifting landscape of the lower Colorado during pre-contact times, tribal members displayed a keen ability to adapt to the rapidly changing circumstances they faced during the late-nineteenth century. While some yielded to the lure of the often-low-paying, wage-labor opportunities in nearby Yuma, most continued to survive by planting in the Colorado’s flood-moistened bottom lands. Indeed, the military reports opposing the establishment of the Arizona reservation did so, in large part, because these lands were deemed “less favorable” for the Quechans’ flood-based irrigation methods and because their removal would inhibit them from gathering additional foods from the “country over which they have roamed.” Moreover, these

⁴⁴ Executive Order of January 9, 1884, in Kappler, *Indian Affairs: Laws and Treaties*, vol. 1, 832; and Bee, *Crosscurrents Along the Colorado*, 19-20.



Map 2: “Map of the Yuma Indian Reservation, California, Showing Proposed Irrigation Ditch,” in Walter H. Graves, U.S. Indian Inspector, to the SOI, January 10, 1902, Box 8, Inspection Reports 1901-1907, Indian Division, Records of the Secretary of the Interior, Record Group 48 [RG 48], National Archives and Records Administration, College Park, Maryland [NARA II].

reports indicated that the Indians still subsisted, mainly, through these long-standing cultivation and gathering practices.⁴⁵

A series of magazine articles written about the Quechans in the summer of 1889 further revealed the tribe’s success in maintaining its traditional subsistence system. After making “[f]requent visits” to the tribe over a period of 18 months, writer Eugene Trippel

⁴⁵ Brigadier General George Crook, Headquarters, Department of Arizona, to the Assistant Adjutant General, Military Division of the Pacific, August 27, 1883, Letter 17345-1883, LR 1881-1907, Entry 91, RG 75, NARA I. See also Bee, *Crosscurrents Along the Colorado*, 19-20, 43. The principal reasons given by Crook for opposing the Quechans’ removal to the Arizona side of the Colorado were as follows: 1) that the lands lying east of the river were “less favorable for cultivation by the methods at present in use by them”; and 2) that the Quechans’ removal from the California side of the river would deprive them of “such supplies as have hitherto been obtained from the extent of country over which they have roamed, and much suffering will inevitably ensue.” It should also be noted that Crook did indicate that some tribal members had begun to search for “such employment as they may be able to procure” in Yuma.

published back-to-back pieces in the California-based journal *Overland Monthly* that included a lengthy and comprehensive portrait of the Quechan Indians, including a discussion of their then-current farming and gathering practices. Although Trippel thoroughly outlined the significant transformations that had impacted the tribe since the advent of the American period—most notably, the expansion of steamboat traffic, the growth of Yuma, and the arrival of the railroad—his articles revealed that, in spite of these developments, the Quechans’ subsistence patterns had changed little since Heintzelman’s time.⁴⁶

This is not to say that the ever-increasing, non-Indian presence in Quechan territory had not made an impact. As Trippel indicated, since the 1850s, steamboats had begun plying the Colorado “laden with goods destined for the expectant frontiersman,” and the Southern Pacific had extended its meandering course past Yuma, crossing the Colorado “by the massive bridge that spans it.” Moreover, Yuma itself had grown from a tiny settlement of only “straggling buildings” to a town that boasted “wide, sandy streets” and “quaint, one-story adobe structures,” as well as “gardens filled with semi-tropical vegetation.” While Trippel indicated that some Quechans sought employment as “deckhands upon the Colorado River steamers” or as laborers in Yuma, he claimed that their “knowledge of modern requirements does not greatly extend,” which limited their ability to make a living solely by wage work. Instead, most tribal members preferred to

⁴⁶ Eugene J. Trippel, “The Yuma Indians,” *Overland Monthly* 13 (June 1889): 561-84; and Eugene J. Trippel, “The Yuma Indians—II,” *Overland Monthly* 14 (July 1889): 1-11. Trippel also noted, at the close of his second article that, due to the absence of sufficient interpreters, he took upon himself the task of learning the Quechan language—an undertaking that bespeaks the significant research effort that formed the basis for his articles.

continue their customary practices of farming in the Colorado's bottom lands and supplementing their agriculture with wild-plant gathering.⁴⁷

Like other commentators before him, Trippel considered the tribe's agricultural methods to be "of the simplest kind." This viewpoint prompted sometimes-disparaging remarks about the perceived limitations of the Quechans' subsistence-based farming efforts. These efforts continued to center on the production of "melons, squash, pumpkins, corn, and beans"—a condition Trippel attributed to the Indians' "deficient knowledge" of modern farming methods, rather than a conscious decision to raise these staple food products. Despite his often-derogatory view of Quechan agriculture, Trippel gave a detailed depiction of their cultivation practices, which almost wholly matched the description provided by Heintzelman more than 30 years earlier. He wrote:

Open spots are selected along the Colorado, so situated as to be liable to the overflows, and to some extent cleared of brush and stubble by burning. After the subsidence of the inundations, holes are dug in the moist earth with sticks to a depth of eight or ten inches. Seeds are thrown on the bottom, and the holes filled to the surface to save and utilize the moisture as long as possible ... nothing further is done until the products ripen, when they are harvested.⁴⁸

To supplement this yearly stock of cultivated crops, the Quechans continued to gather wild plants, seeds, and roots from nearby uplands, still preferring the beans of the "scrubby mesquite trees" that reportedly "abound[ed] everywhere." Trippel's lengthy description of the tribe's collection and preparation of mesquite beans and screwbean pods reflected the ongoing value of this food supply to the tribal diet. He claimed that the

⁴⁷ Trippel, "The Yuma Indians," 562-64.

⁴⁸ Trippel, "The Yuma Indians," 573-74. Trippel's biased perceptions were also reflected in his statements about the Quechans' purported "lack of ambition and necessary knowledge" regarding canal construction. He claimed that tribal members were only "worth their salt at canal construction" when they were "personally directed and controlled by the whites." He additionally claimed that the Quechans sowed seeds with "[n]o uniformity," planting simply "where the digging is easiest." This practice led to crops that grew "everywhere and anywhere in the most curious combinations, and in a manner calculated to bewilder the mind of the average civilized husbandman."

Indians enjoyed these plants in various ways, eating them straight from the tree, grinding fresh pods into a “mush,” or drying them for future use. By grinding and applying water, the dried pods or beans could be converted into “flat unleavened cake[s]” that “kept for years.” The remarkable similarities between Trippel’s description of the tribe’s overall subsistence patterns and that given by Heintzelman—as well as the Spanish missionaries a century before—stood as a testament to the Indians’ ability to preserve their traditional lifestyle in the face of the turbulent changes surrounding them.⁴⁹

But, while Trippel’s articles illustrated the tribe’s thus-far-successful effort to maintain its aboriginal subsistence system, they also reflected troubling environmental trends in the lower Colorado basin that signaled future difficulties for the Quechans’ traditional farming practices. In particular, Trippel revealed that, in 1888, the river’s spring overflow was insufficient to produce a typical crop yield, leaving the Indians “seriously crippled” and forcing them to make “extra exertions to keep from starving.” As anthropologists Castetter and Bell indicated in their study of aboriginal farming along the lower Colorado, the annual floods on which the region’s tribes depended to plant their crops became less certain as non-Indian settlement increased in the river basin. After noting that low-flood years were “not common” during the pre-contact period, Castetter and Bell pointed out that deficient flooding occurred in the basin in 1858, 1871, and 1873, as well as in the late 1880s, when Trippel visited the Quechan villages. The authors attributed these increasingly inadequate overflows to the expanding use of the river for irrigation by white settlers.⁵⁰

⁴⁹ Trippel, “The Yuma Indians,” 574.

⁵⁰ Trippel, “The Yuma Indians,” 574; and Castetter and Bell, *Yuman Indian Agriculture*, 7-8.

In recognition of these impacts, Trippel closed his articles about the Quechans with a gloomy prediction for their future. Although the Indians had “maintain[ed] their numerical strength for the past thirty or forty years,” the author argued that their “existence as a united people” was becoming “seriously threatened.” He asserted that whites had “virtually ignored” their lands until the mid-1800s because they “erroneously believed that Arizona and Southeastern California were deserts incapable of sustaining life.” However, the Quechans’ typically “flourishing” fields had proven this long-held belief to be “totally incorrect.” This, in turn, had unintentionally encouraged non-Indians to scoop up open lands in the region “at an unprecedented rate” and begin rapidly settling “hitherto unoccupied valleys.” According to Trippel, the increasing Anglo settlement along the lower Colorado could only prove disastrous for the Quechans:

In due course of time the constantly increasing population will encroach upon the outskirts of the Indian ranges to the extent of forcing the weaker race to adopt the habits of the stronger and by assimilation to lose their identity, which will naturally follow the destruction of tribal customs and traditions—the only influence that unites them.⁵¹

The expanding influence of non-Indian settlements and transportation networks in the region was not the only assimilationist force challenging the tribe’s customary lifeways at the end of the 1880s. As the town of Yuma grew and as the railroad brought increasing numbers of white settlers and Anglo goods into Quechan territory, federal officials were busy formulating the two policies that would reshape Indian lands and livelihoods throughout the West at the most fundamental level—allotment and irrigation. The imminent onset of these intersecting policies was reflected in numerous reports written at the close of the decade, most notably the inspection report of Special Agent

⁵¹ Trippel, “The Yuma Indians—II,” 10.

W.E. Ferree, which was published as a part of the 1890 census. As his predecessors had done, Ferree provided a detailed description of the Quechans' purportedly "crude," yet still relied upon, farming practices. Predictably, he also speculated about the market-based crops that, he believed, could prosper in the region.⁵²

The most telling statements in Ferree's report, however, were those in which he divulged his high hopes for the future application of modern agricultural and irrigation techniques to the Quechans' lands. Echoing the exceedingly redemptive rhetoric of his reclamation-happy, late-nineteenth-century counterparts, Ferree asserted that much of the 45,000-acre Fort Yuma Reservation "could be cultivated if water for irrigation could be procured." He then offered his version of the oft-repeated, turn-of-the-century call to make the desert bloom, claiming that the Quechans' "rich" lands needed only water to make them "blossom as the valley of Hebron." While the expense of bringing a modern irrigation system to the reservation would be "considerable," Ferree believed the tribe would be quickly repaid through both increased agricultural production and the "practical instructions" they would receive in Anglo farming methods.⁵³

The beneficial byproducts envisioned by Ferree could only come about through the application of the federal government's still-nascent vision of allotting and irrigating Indian lands throughout the arid West. Over the next two decades, the dual impacts of these overarching policies would be increasingly felt upon the lands of the Fort Yuma Reservation and within lives of tribal members. The Quechans had successfully retained their traditional subsistence system during the four decades following the establishment

⁵² "Report of Special Agent W.E. Ferree, M.D., on the Indians of the Yuma Reservation," December 1890, in House, *Report on Indians Taxed and Indians Not Taxed in the United States (Except Alaska) at the Eleventh Census: 1890*, 52d Cong., 1st sess., 1894, H. Misc. Doc. 340, pt. 15, serial 3016, 220.

⁵³ "Report of Special Agent W.E. Ferree," in House, *Report on Indians Taxed and Indians Not Taxed*, 220.

of a military post in their territory, skillfully adapting to the altered circumstances created by transportation development, the growth of non-Indian settlements, and the creation of a reservation in the confluence area. Continuing to undertake such adaptations would prove ever more difficult, however, in the face of the impending allotment and irrigation construction on their lands. Ultimately, it was a battle that would prove impossible to win, not only for the Quechans, but for tribes throughout the West.

3. IRRIGATING AND ALLOTTING QUECHAN INDIAN LANDS, 1890-1910

Their land is as fertile as any in the world, perhaps. Millions of gallons of water wash its banks and pass on to the sea. At a comparatively small outlay a portion of this water could be distributed upon the land, and the prosperity of the Indians thereby assured ... I am more convinced every day that if their land were irrigated and allotted, the Indians would work it profitably and successfully.

John Spear, Fort Yuma Superintendent, 1901¹

Although the Quechans had already weathered multiple challenges to their traditional lifeways throughout the latter half of the 1800s, the turn of the century would usher in even more difficult trials. As Special Agent Ferrebee intimated in his 1890 inspection report, federal officials were already considering the application of the newly passed Dawes Act, as well as the redemptive vision of large-scale reclamation, to the tribe's lands. While the federal government would not successfully implement these policies for another 20 years, for the Quechans, the two decades straddling the turn of the century would be marked, principally, by the ongoing efforts to do so. Agents in the Indian Office and the Reclamation Service worked diligently through the 1890s and early 1900s to bring the purportedly beneficial transformations of allotment and irrigation to the Fort Yuma Reservation. By the early 1910s, they would finally succeed.

Unlike the earlier changes that had come to the confluence area during the closing decades of the nineteenth century, allotment and irrigation were directed squarely at the Quechans themselves. While tribal members undoubtedly felt the impacts of occurrences such as railroad development and non-Indian settlement near the reservation, these events happened largely outside of individuals' lives. The Quechans, thus, were able to choose

¹ John S. Spear, Superintendent, Fort Yuma Indian School, to the CIA, August 17, 1901, in *Annual Report of the Commissioner of Indian Affairs* [ARCIA] 1901, 530.

how they incorporated these transformations into their livelihoods—or whether they incorporated them at all. Allotment and irrigation, however, were altogether different creatures. As many historians have shown, the primary intent of these policies was to alter, fundamentally, the way in which Indian people lived their lives. Whether a tribe had previously subsisted by hunting and fishing or by farming and gathering wild plants, the government’s vision for them was the same—to become self-sufficient, market-oriented farmers in the Jeffersonian mold. To do this, federal officials sought to divide Indian lands into small, individually owned parcels and, on many reservations throughout the arid West and Southwest, to build irrigation projects. Situated as they were on the lower Colorado’s fertile bottom lands, the Quechan Indians were prime targets for both developments.²

Discussions about the possibilities for irrigation on the tribe’s lands began as the government was debating the establishment of the Fort Yuma Indian Reservation in the early 1880s. In addition to the Indians’ opposition to the Arizona reservation, government officials agreed to move the tribe’s reservation to the California side of the river partly because the lands on the east bank of the Colorado exhibited less potential for irrigation. Lieutenant George Anderson, for example, deemed it “impossible to irrigate from the Colorado” on the Arizona side, stating, “Wherever ditches have been taken out, they have proved failures, and I think capital would have been attracted to this extensive and rich bottom land had the cultivation of it been feasible.” Similarly, Indian Agent John Clark

² For good discussions about the importance of allotment and irrigation in the federal government’s efforts to assimilate Native Americans into their agrarian vision of Anglo life, see Lewis, *Neither Wolf Nor Dog*, 3-21; Pisani, *Water and American Government*, 154-61, 172-80; and Hurt, *Indian Agriculture in America*, 136-173.

argued that “no ditch or canal can be constructed in that locality which would prove beneficial to the Indians or any one else.”³

Investigations into prospective irrigation projects on the California side of the river would prove far more fruitful. By 1890, Special Agent Ferreebee was discussing, with high hopes, irrigation possibilities on the recently established reservation on the west bank of the Colorado. Ferreebee indicated that Indian officials were then considering “the purchase of pumps to raise the water from the river, and the construction of a canal to convey it upon the lands.” He believed that such construction efforts, coupled with “practical instructions in the methods of farming,” would offer the Quechans “an opportunity to redeem themselves” from the alleged “degradation” of their present existence. Ferreebee further noted that the tribe’s lands, through irrigation, could support the growth of “all semitropical fruits, both citrus and deciduous,” as well other market-based crops, which would position the Indians for “successful and profitable cultivation.”⁴

United States Geological Survey Director John Wesley Powell, who previously had explored much of the lower Colorado basin, outlined the findings of the federal government’s irrigation investigations in a February 1891 letter to the Indian Office. After noting that it appeared “perfectly feasible” to build canals from the Colorado to irrigate arable lands on both sides of the river, Powell expressed concern about the cost of such a venture, especially if “the irrigation of the Yuma Reservation alone were contemplated.” As a possible alternative, he suggested using pumps to raise “large

³ Lieutenant George Anderson, Yuma, Arizona, to the Assistant Adjutant General, Department of Arizona, August 20, 1883, Letter 17345-1883; and John Clark, Agent, Colorado River Agency, to the CIA, November 12, 1883, Letter 21406-1883; both in LR 1881-1907, Entry 91, RG 75, NARA I.

⁴ “Report of Special Agent W.E. Ferreebee,” in House, *Report on Indians Taxed and Indians Not Taxed*, 220.

quantities of water” onto the estimated 25,000 acres of cultivable lands on the reservation—which Powell believed could support the growth of agricultural products “of the highest value.” This method, though, involved “relatively high” annual expenses, due to the constant need for fuel to run the pumps. Presumably because of the high costs involved in these proposed irrigation schemes, these examinations led to little actual irrigation work on Quechan lands during the early 1890s.⁵

Despite these ongoing federal investigations, the first serious proposals to irrigate the Fort Yuma Reservation were made by private canal companies, not the government. By early 1893, officials in charge of the recently incorporated Colorado River Irrigation Company (CRIC) were lobbying Congress and the Indian Office to grant them a right-of-way for an irrigation canal across the reservation. Outlining the company’s grand vision for irrigating heretofore-arid lands in the Imperial valley, the House Indian Affairs Committee reported that CRIC planned to “take a gravity canal from such point [on] the Colorado River as will insure sufficient flow of water so as to reach and develop certain lands in southern California now entirely arid and useless.” In so doing, the company was “compelled to pass through the Yuma Indian Reservation, owing to the contour of the country.” In short, the committee report revealed that the Quechans’ recently established reservation stood as the linchpin to the anticipated development of the Imperial valley—the reportedly “arid and useless” region to which CRIC hoped to deliver water.⁶

Owing to the vital importance of the Quechans’ lands to its overall plan, the company was amenable to granting certain concessions to the tribe. In particular, the

⁵ John Wesley Powell, Director, U.S. Geological Survey, to T.J. Morgan, CIA, February 6, 1891, Letter 4963-1891, Box 215, Special Case [SC] 190, Special Cases 1821-1907, Entry 102, RG 75, NARA I.

⁶ House, *Right of Way Through Yuma Indian Reservation, Cal.*, 52d Cong., 2d sess., 1893, H. Rpt. 2440, serial 3141, 1. For good discussions about the early development of the Imperial valley, see deBuys, *Salt Dreams*, 99-121, 128-29, 154-65; and Worster, *Rivers of Empire*, 194-212.

House committee indicated that CRIC officials were “perfectly willing to subject themselves to the conditions of obtaining the consent of the Indians now located on the reservation” before proceeding with their work. Additionally, if Congress granted the requested right-of-way, the company promised to “furnish said Indians with all the water they need for irrigating and other purposes, under such conditions as the Secretary of the Interior may prescribe.” Revealing their support for the CRIC scheme, committee members claimed that the construction of the proposed canal would “not only benefit all the regions through which it passes, but will be found especially beneficial to the Indians on the reservation.” Legislators further asserted that the company was “fully officered by responsible men” and was “well equipped to carry out its work.”⁷

Like his congressional counterparts, Commissioner of Indian Affairs Thomas Morgan also threw his full support behind the measure. Writing to the secretary of the interior in February 1893, Morgan extolled the virtues of CRIC’s lofty vision, noting that he had “been on the ground” and knew “from personal observation” that the Quechans’ lands were “greatly in need of a system of irrigation.” He claimed that the government’s investigations into the matter had revealed that building a system solely to benefit tribal members would “necessarily involve a large expense,” making it especially “wise” to consider the plan proposed by CRIC. Moreover, Morgan argued that the Indians would be “fully compensated, at least for the land that will be taken in the construction of the canal, by receiving a supply of water therefrom sufficient for all their purposes, domestic and agricultural, including irrigation.” Considering all these factors, the commissioner

⁷ House, *Right of Way Through Yuma Indian Reservation, Cal.*, 1.

told the secretary that he “not only raise[d] no objections” to passing the right-of-way bill, but instead “strongly recommended its enactment.”⁸

Morgan’s high praise of CRIC’s plan helped it win swift congressional approval. Large portions of his commendatory letter were read on the floor of the House, leading to that body’s prompt passage of the company’s right-of-way legislation.⁹ The Senate quickly followed suit, and, on February 15, 1893—a mere week after Morgan wrote to the secretary—the president signed the bill into law. As enacted, the legislation granted CRIC a 50-foot-wide canal right-of-way extending from the northeastern corner of the Fort Yuma Reservation—where the boundary intersected with the Colorado River, near the later location of the Laguna Dam—“running thence south and west through the said reservation to and beyond the limits thereof.” In addition, Congress made the grant “on the express condition” that the company “furnish the Indian occupants of the land situated on the lower side of the canal” with enough water to meet all their “domestic and agricultural” needs. With this legislation in place, it appeared that the dawn of a new era of irrigated agriculture was on the horizon for the Quechan Indians.¹⁰

Indeed, Commissioner Morgan was so certain about the legislation’s beneficial impacts that he recommended the immediate application of the other vital component of the government’s late-1800s assimilation agenda to the reservation—the allotment of Quechan lands. On the eve of the right-of-way act’s passage, Morgan sent another letter to the secretary, telling him that CRIC’s irrigation proposal would “remove the principal obstacle which has heretofore stood in the way of agricultural pursuits of the Indians on

⁸ T.J. Morgan, CIA, to the Secretary of the Interior [SOI], February 8, 1893, Letter Book 251, Land Division, Letters Sent by the Office of Indian Affairs 1881-1907 [LS 1881-1907], Entry 96, RG 75, NARA I, pp. 444-46.

⁹ *Congressional Record*, 52d Cong., 2d sess., February 10, 1893, 24: 1427.

¹⁰ Act of February 15, 1893, 27 Stat. 456.

this reservation.” Ignoring the fact that the Quechans had cultivated lands along the river for centuries, he claimed that, with their reservation allotted and water to irrigate it, together with “a few farming implements,” tribal members would “soon need no further support from the government.” With this in mind, Morgan urged the secretary to call on outgoing President Benjamin Harrison to exercise the authority granted him under the recently passed Dawes Act by ordering the immediate allotment of the Fort Yuma Reservation.¹¹

The imminent change of administrations in the White House, though, halted the hoped-for progress in allotting the Quechans’ lands. Six months after Morgan made his recommendation, newly inaugurated President Grover Cleveland had yet to order the allotment of the reservation. Moreover, a September 1893 letter written by Morgan’s successor, Daniel Browning, revealed that CRIC was facing financial difficulties that threatened to undermine its entire venture. The company’s president, John Beatty, told Browning about these problems in August, noting that, if CRIC were to succeed in its attempts to irrigate “700,000 or 800,000 acres” in the “Colorado Desert,” the company would need to raise money to begin building its canal “as soon as possible.” To do this, Beatty asked the Indian Office to appoint a negotiating team to secure an agreement from the Quechans to cede “a portion of their lands” lying under the proposed ditch. Opening these lands to non-Indian settlement would, according to Beatty, enable CRIC to make

¹¹ T.J. Morgan, CIA, to the SOI, February 14, 1893, Letter 28700-1893 (Enclosure No. 1), Box 1007, LR 1881-1907, Entry 91, RG 75, NARA I. Apparently hoping to push the allotment of the Fort Yuma Reservation through before the lame-duck Harrison administration left office the following month, Morgan suggested the appointment of a specific allotting agent, William Jenkins, who had just finished allotting a small reservation in Oregon and was reportedly “at his home awaiting orders.”

“an earning capacity for their canal,” which, in turn, would allow company officials to begin work on it.¹²

Like his predecessor, Browning did everything in his power to assist CRIC’s irrigation-related endeavors. Citing a minor provision within the recently passed Indian Appropriations Act, he told the secretary that he had “unquestionable” authority under this law to appoint a commission to negotiate with the Quechans “for the cession of such portion of their reservation as they may be willing to cede.” While Congress would still need to ratify any such agreement, Browning pointed out that the proposed commission could be appointed “without the specific authority of the President,” thereby empowering the secretary to advance the eagerly anticipated allotment and irrigation of the Fort Yuma Reservation on his own. Browning’s unequivocal support for these developments was clear, as he told the secretary that the Quechans’ lands were “as fertile as any in the world when water can be had, but without the artificial application of water it is worthless.” Believing that the land cession requested by Beatty would expedite completion of CRIC’s much-hoped-for canal, Browning recommended the immediate appointment of three government negotiators to consult with the tribe.¹³

While the commissioner was undertaking administrative efforts to promote the allotment and irrigation of Quechan lands, townspeople in Yuma were taking hands-on steps to ensure the nearby reservation’s rapid development. At the end of July 1893, local Wells Fargo agent O.F. Townsend notarized—and very likely wrote—a petition and proposed “agreement” allegedly signed by a group of roughly 100 tribal members, in

¹² D.M. Browning, CIA, to the SOI, September 1, 1893, Letter Book 264, Land Division, LS 1881-1907, Entry 96, RG 75, NARA I, pp. 163-68.

¹³ Browning to the SOI, September 1, 1893, Letter Book 264, Land Division, LS 1881-1907, Entry 96, RG 75, NARA I, pp. 163-68.

which they asked for their lands to be allotted. Outlining their reasons for this request, the Indians purportedly stated their belief that, “if a portion of the land now embraced in our reservation could be thrown open to settlement an irrigating ditch would be built through the reservation, which is not practicable off our reservation in this vicinity.” In addition to providing a more certain supply of water to their lands, the proposed canal’s construction would also increase tribal members’ ability to “secur[e] labor while building and among settlers after its completion.” The CRIC canal would also improve the Indians’ ability to participate in the area’s expanding agricultural market. The petition stated:

We have noticed that our white neighbors across the river on the Arizona side raise fine crops, and on account of the climate get their fruits early, so that they bring large prices and they are compelled to cultivate only very small tracts to make a living and more. As it is the white man has his watermelons ripe by the first of June. We must wait for ours until September. So it is with other products of the soil because we have to wait on the river for our irrigation. While with water the soil is fertile, nothing will grow without irrigation, for there is no rain. Hence we want the ditch built so that we can get water and have early and large crops like our white friends.¹⁴

Besides the suspiciously legalistic verbiage contained in the Quechans’ purported July 1893 agreement and petition, the documents bore other indications of dubiousness. In particular, the names of several tribal leaders were absent from the list of signatories. Anthropologist Robert Bee further indicated that tribal members informed him, during interviews conducted in 1974, that many of the names that appeared on the documents “were not recognizable Quechan names.” Most notably absent from this list, though, was the signature of the Quechans’ recently deposed head chief, Miguel, who had held this

¹⁴ Yuma Indians to the President and Congress, July 27, 1893; and “Articles of Agreement Made and Entered Into on the Fort Yuma Indian Reservation, County of San Diego, California, on the Part of the Yuma Indians,” July 24, 1893; both in Senate, *Letter from the Secretary of the Interior, Transmitting a Copy of an Agreement with the Yuma Indians, with a Report from the Commissioner of Indian Affairs and Accompanying Papers*, 53d Cong., 2d sess., 1894, S. Ex. Doc. 68, serial 3160, 14-17. For brief discussions about O.F. Townsend and his impact on tribal political affairs during the late 1880s and early 1890s, see Bee, *Crosscurrents Along the Colorado*, 28, 33-34.

leadership position since 1887, when he secured the post via the deathbed appointment of the tribe's long-standing chief, Pasqual. Miguel had fallen out of favor with officials at the Fort Yuma Indian School for refusing to compel tribal members to send their children to school. In response, school officials ousted Miguel in March 1893—four months prior to the petition and agreement—and appointed a new leader, Joe Palma, who appeared more sympathetic toward the school.¹⁵

Irrespective of the credibility of the July 1893 agreement and petition, these documents clearly revealed the highly uncertain nature of the Quechans' political affairs in the early 1890s—a time when the tribe was facing the most difficult challenges, to date, to its long-standing livelihood. Tribal leadership would become no less muddled during the months following the drafting of the suspect July petition and agreement. In September 1893, while Interior Department officials were considering Commissioner Browning's recommendation to appoint an official negotiating team to meet with the Quechans, Indian police officers—acting under orders from school officials—arrested former-head-chief Miguel and seven of his associates. Accused of protesting ongoing allotment-and-canal surveys on the reservation, the detained individuals endured whippings and then spent the next several months far from the reservation, in a county jail in Los Angeles. Bee argues that Miguel's arrest likely reflected a “deliberate” effort

¹⁵ Bee, *Crosscurrents Along the Colorado*, 24-34. Trippel provided a detailed account of the transfer of leadership from Pasqual—who had served as the Quechans' head chief since 1852—to Miguel. Trippel had spent time with Pasqual, enjoying “several very interesting conversations with him,” during his extended visits to the Fort Yuma Reservation in preparation for writing his 1889 articles for *Overland Monthly*. Interestingly, Trippel indicated that Pasqual chose Miguel over his own son—Joe Palma, whom school officials, in 1893, appointed as Miguel's replacement—after his son reportedly refused the post “for the reason that the dignity attending such an exalted position would prevent extensive commercial intercourse, and that he would be able to make more money as a private individual.” See Trippel, “The Yuma Indians,” 567-68.

by school officials “to get Miguel and his associates temporarily off the reservation” as government negotiators tried to hammer out a land-cession agreement with the tribe.¹⁶

All the while, government officials were proceeding with steps to establish a commission to negotiate the formal land-cession agreement requested by Beatty in August 1893. By late-October, the secretary had appointed three negotiators, and Browning had sent instructions to guide their talks with the Quechans. In addition to outlining CRIC’s overall irrigation plan, Browning informed the appointees that the company had agreed to furnish the Indians with water sufficient for agricultural and domestic purposes. Although the company had yet to file “any maps of definite location” showing where their proposed canal would run, Browning instructed the commissioners to consult with CRIC officials to ascertain “as near as may be the proposed route of the canal,” which, in turn, would allow them to “determine what lands should be retained for the Indians.” In this regard, Browning suggested that “ten acres or possibly five acres” would be “sufficient” for each Quechan allottee—a quantity that paled in comparison to the typically 80- and 160-acre allotments on other reservations throughout the West, but likely reflected the presumed high value of these lands after irrigation.¹⁷

Government negotiators arrived on the Fort Yuma Reservation at the close of November 1893. Although the extant record of the councils held with the Quechans includes only a brief report of the proceedings, even this limited documentary record reveals that tribal members showed particular interest in the proposed construction of CRIC’s canal. Specifically, the Indians inquired about “how soon” the company planned to initiate work on its canal and “when they are going to have it finished.” CRIC officials,

¹⁶ Bee, *Crosscurrents Along the Colorado*, 29-33.

¹⁷ D.M. Browning, CIA, to Washington J. Houston, John A. Gorman, and Peter R. Brady, October 24, 1893, Letter Book 267, Land Division, LS 1881-1907, Entry 96, RG 75, NARA I, pp. 193-200.

who were present at the council, informed the assembled tribal members that “work would be commenced about the 1st of December and pushed as quickly as circumstances would admit.” The available records also indicated that the Quechans present agreed to accept the smaller allotments recommended by Browning, as well as agreeing to sell the irrigable acreage that remained after dividing their lands into individually held tracts.¹⁸

The Yuma Commission’s subsequent report of its negotiations with the Quechans provided additional details about the council. Most important were comments about the lands to be irrigated, allotted, and sold below the line of CRIC’s proposed canal. Figuring that the Indians’ five-acre allotments would cover about 3,600 acres, the commissioners believed that the roughly 14,000 irrigable acres remaining in the reservation could be sold to white settlers in 10-acre tracts at post-reclamation prices. Since they estimated the value of irrigated land in the region at \$50 per acre—a ballpark “average” decided upon, after hearing estimates “from \$25 to \$100 and upward”—the commission told tribal members that the land sales could generate over \$600,000 for use in “the payment of water rent, building of levees, irrigating ditches,” and other agricultural expenses. According to the report, the most important factor impacting the land’s value was its status as a “first-class citrus land,” as well as its capacity for growing market-based crops, such as “cereals, fruits, vegetables, [and] alfalfa.” The report indicated that the land values and potential land sales were “very thoroughly discussed” with the Indians. These discussions, in turn, led to the insertion of a proviso in the December 1893 agreement that outlined the procedures under which the tribe’s so-called “surplus” lands would be sold

¹⁸ Houston, Gorman, and Brady, [Report of Proceedings], November 24 and December 4, 1893, in Senate, *Letter from the Secretary of the Interior, Transmitting a Copy of an Agreement with the Yuma Indians ...*, 17-18.

to bidders at public auction, after irrigation, “at not less than the appraised value thereof.”¹⁹

Discussing the overall condition of the lands to be irrigated by the CRIC canal, the commissioners stated, unequivocally, that there was “no better land anywhere.” In saying this, they noted, in particular, that the “sandy loam” comprising the reservation’s bottom lands had been “annually enriched by the overflow of the Colorado River.” Moreover, the Quechans’ “primitive” flood-based farming techniques had clearly demonstrated the “great fertility” of the areas to be irrigated by CRIC’s canal, even though these methods had reportedly brought “[o]nly small patches” under cultivation. The Yuma Commission led trips over these potentially irrigable areas with tribal leaders to determine where the Indians “would prefer to have their allotments.” On the basis of these excursions, the commissioners recommended that the allotments be located on the reservation’s eastern edge, in a contiguous body, “near the headwaters of the canal.” Finally, they urged the Indian Office to insert a provision in the ratifying legislation that would place a “time limit” on CRIC’s canal work.²⁰

In spite of these apparent precautions taken by the commission, letters written after the negotiation of the December 1893 agreement indicated that it, too—like the agreement and petition purportedly signed by the tribe six months earlier—was marred by questions about its authenticity and the conduct of the commissioners who negotiated it. Three weeks after the agreement’s negotiation, Yuma attorney George Knight wrote a letter claiming that, only “by threats,” had the negotiators been able to convince “a large

¹⁹ Houston, Gorman, and Brady to the SOI, January 24, 1894; and Articles of Agreement, December 4, 1893; both in Senate, *Letter from the Secretary of the Interior, Transmitting a Copy of an Agreement with the Yuma Indians ...*, 6-13, 19-22.

²⁰ Houston, Gorman, and Brady to the SOI, January 24, 1894, in Senate, *Letter from the Secretary of the Interior, Transmitting a Copy of an Agreement with the Yuma Indians ...*, 6-13.

number of Indians to sign the paper which they presented, the contents of which the Indians had no knowledge of.” Claiming that he had “little faith” in the commission’s “honesty of purpose,” Knight suggested, in no uncertain terms, that the entire agreement was intended to benefit CRIC, not the Quechans. He wrote, “It is generally believed here that the whole thing is a huge swindle in the interest of the said canal company, in whose private interest the Indians are to be ousted.”²¹

Even the local newspaper questioned the negotiations, writing in late-October, “It is rumored on the streets that the big canal company across the river are at the bottom of this matter.” The paper further wondered whether “actual settlers” would ultimately take up the lands under the proposed canal or whether these “fine valley lands” would be “gobble[d] up” by speculators.²² Perhaps even more telling was that one of the commission’s own members, Peter Brady, expressed doubts about the integrity of the proceedings. In early January 1894, Brady informed Commissioner Browning that the chairman of the negotiating team seemed to know “very little about Indian character” and appeared to be in “a rush and hurry” to “return back to Washington.” Although Brady worried, at the time, that the chairman’s “improper haste” would inhibit the Yuma Commission from “fully discharg[ing]” its duties, he felt “compelled to defer” to his chairman “or else have an open rupture with him.” In his closing remarks, Brady apologized to the Indian Office that he and the other appointees “did not fully comply and carry out the instructions of the Department.”²³

²¹ G.M. Knight, Yuma, Arizona, to Captain John Mullan, December 27, 1893, in Senate, *Letter from the Secretary of the Interior, Transmitting a Copy of an Agreement with the Yuma Indians ...*, 24-25.

²² *Arizona Sentinel*, October 28, 1893, “To Be Cut Up.”

²³ Peter R. Brady, Commissioner to Yuma Indians, to D.M. Browning, CIA, January 18, 1894, Letter 3433-1894, Box 178, SC 147, Special Cases 1821-1907, Entry 102, RG 75, NARA I.

Despite the significant questions surrounding the conduct of the negotiations that led to the December 1893 agreement with the Quechans, the agreement experienced little difficulty obtaining both Indian Office and legislative approval. One by one, the members of the Yuma Commission simply denied the allegations made by George Knight, claiming that the attorney's assertions regarding "threats and want of knowledge on the part of the Indians" were "false in every particular." They also painted the attorney as "a crank," who had a penchant for "roaring, blustering diatribe" and whose condemnatory letter merely reflected "the vagaries of a lunatic."²⁴ Moreover, once he had received a copy of Knight's letter, Peter Brady quickly retracted his earlier critique of the chairman's work—telling Commissioner Browning that he "may have been a little too hasty in the matter"—and asked that his own letter of rebuke be returned to him. As Brady requested, his letter did not appear in the report that the Indian Office submitted to Congress along with the December 1893 agreement.²⁵

In fact, the Indian Office's transmittal of the agreement and the commissioners' report made little mention of the controversy surrounding the negotiations with the Quechans. After outlining the complaints made by George Knight, Indian officials simply noted that each member of the Yuma Commission had "emphatically denied all the material allegations of Mr. Knight" and that Knight appeared "uninformed as to the provisions of the agreement." With these issues summarily disposed of, the Indian Office recommended congressional approval of draft legislation that incorporated the provisions

²⁴ Washington J. Houston, Chairman, Yuma Commission, to Peter Brady, January 29, 1894; and P.R. Brady to John A. Gorman, February 8, 1894; both in Senate, *Letter from the Secretary of the Interior, Transmitting a Copy of an Agreement with the Yuma Indians ...*, 25-27.

²⁵ Peter R. Brady, Yuma Indian Commissioner, to D.M. Browning, CIA, February 5, 1894, Letter 5902-1894, Box 178, SC 147, Special Cases 1821-1907, Entry 102, RG 75, NARA I. For the absence of Brady's earlier letter of rebuke from the Indian Office's report to Congress, see Senate, *Letter from the Secretary of the Interior, Transmitting a Copy of an Agreement with the Yuma Indians ...*, 1-32.

of the December 1893 agreement. The office submitted the proposed bill to Congress in March 1894, recommending its prompt passage. The Interior Department, likewise, urged the swift approval of a ratification law.²⁶

The Senate took up the measure in the spring of 1894, passing the proposed bill without debate in May of that year. As recommended by the Senate Committee on Indian Affairs, the Senate version of the bill included two important provisions added to the original draft legislation that the Indian Office had sent to Congress two months earlier. First, the Senate bill fixed a three-year time limit within which CRIC was required to begin work on its proposed canal through the Fort Yuma Reservation. Perhaps equally important to the Quechans was the proviso that formally granted each adult, male tribal member irrigation water from the anticipated CRIC canal “free of all rent charges” for one acre of his allotment. Additionally, the Senate bill authorized the Interior Department to set any future water rents payable by tribal members.²⁷

Like its Senate counterpart, the House Indian Affairs Committee viewed the CRIC canal as a key component of the proposed legislation. Discussing its support for the ratification bill, the committee claimed that approving the December 1893 agreement would be a boon for the Quechans and their ability to implement the market-oriented agricultural future that the government envisioned for them. With CRIC’s promise of “a perpetual free water right” to tribal members and “free water rental” for a portion of their allotted lands, the House committee believed that the Indians would soon have “ample means of earning a livelihood.” In fact, committee members suggested that, through

²⁶ Frank C. Armstrong, Acting CIA, to the SOI, February 28, 1894; and Hoke Smith, SOI, to the President of the Senate, March 19, 1894; both in Senate, *Letter from the Secretary of the Interior, Transmitting a Copy of an Agreement with the Yuma Indians ...*, 1-6.

²⁷ *Congressional Record*, 53d Cong., 2d sess., May 19, 1894, 26: 4969.

irrigation, the estimated 3,600 acres of individual allotments—which represented less than 10 percent of the entire Fort Yuma Reservation—would be “of far greater value than the entire reservation now is.” Indeed, the report claimed that the “paramount reason” for the proposed legislation was “found in the proposition of the Colorado River Irrigation Company to furnish the Yuma Indians with water for irrigation purposes.”²⁸

But it was equally clear to the House committee that the Quechans were not the only ones who would benefit from the ratification of the December 1893 agreement. In particular, committee members emphasized the advantages to be derived from irrigating not only the reservation, but also lands within the nascent Imperial valley, which the report called “the most arid in America.” Although the committee considered this area to be “an absolute waste land” at present, its members believed that, with irrigation, the valley would prove “exceedingly fertile” and would be particularly adapted to cultivating high-value crops, such as “semitropical and tropical fruits and vegetation.” Since CRIC officials viewed the route through the Fort Yuma Reservation as the most cost-effective way to bring water to the Imperial valley, legislators were more than happy to assist the company in its attempts to make this particular desert bloom:

This irrigation enterprise has been organized with the purpose of building an extensive canal, to be supplied with water from the Colorado River, which, heading at the upper extremity of the present Yuma Reservation, crosses the entire reservation and passing through Lower California, extends into the Colorado desert, where there is an immense body of land susceptible of irrigation ... All reports agree that if water can be placed upon the soil, as there is no doubt it can be, by this proposed canal, the region will soon become one of the most prosperous and productive in the country.²⁹

²⁸ House, *Agreement With Yuma Indians in California*, 53d Cong., 2d sess., 1894, H. Rpt. 1145, serial 3271, 2.

²⁹ *Ibid.*

With visions of transforming the heretofore-arid Imperial valley into an agricultural wonderland firmly implanted in their minds, legislators promptly passed legislation to ratify the December 1893 agreement with the Quechans.³⁰ However, despite the lofty hopes of government officials, CRIC's much-anticipated canal was never built. Although the company's president submitted plats of the proposed canal to the secretary of the interior in the fall of 1894, Interior officials found these maps useless, telling the Indian Office that its engineers had been unable to "accurately locate the canal upon the ground."³¹ Moreover, while the government took steps to survey the reservation in anticipation of allotting lands to the Quechans, allotment work could not proceed, under the terms of the 1893 agreement and the subsequent ratification law, until irrigation construction was complete.³² By 1898, it had become abundantly clear that this would not occur under the auspices of the CRIC enterprise. The agent in charge of the Fort Yuma Indian School summed up the situation well, telling the Indian Office that summer, "The [CRIC] undertaking is a complete failure. No work being done for the past three years. It is seemingly abandoned."³³

In spite of the colossal failure of CRIC to abide by the terms of the December 1893 agreement, federal officials did not relinquish their hopes of irrigating and allotting the Quechans' lands. By the turn of the century, these officials had simply shifted their

³⁰ Act of August 15, 1894, 28 Stat. 286 at 332. Rather than passing as a separate bill, the ratifying legislation was ultimately attached as a rider to the 1895 Indian appropriations bill. See *Congressional Record*, 53d Cong., 2d sess., July 12, 1894, 26: 7386-87; and *Congressional Record*, 53d Cong., 2d sess., July 18, 1894, 26: 7630-31.

³¹ Hoke Smith, SOI, to the CIA, February 27, 1895, Letter 8939-1895, Box 215, SC 190, Special Cases 1821-1907, Entry 102, RG 75, NARA I.

³² Frank S. Ingalls, "Plat Showing the Subdivision of the Yuma Indian Reservation into Sections," approved August 17, 1896, copy obtained from the Bureau of Land Management [BLM], California State Office, Sacramento, California. For the terms of the ratifying legislation requiring irrigation to precede allotment, see Act of August 15, 1894, 28 Stat. 286 at 332.

³³ Mary O'Neil, Superintendent, Fort Yuma Indian School, August 18, 1898, Letter 38728-1898, Box 215, SC 190, Special Cases 1821-1907, Entry 102, RG 75, NARA I.

focus away from private enterprise toward government development of the area's water supply. Interior Department inspector Frank Armstrong elucidated this shift clearly in a November 1901 report to the secretary. Noting that the Quechans continued to rely on the annual overflow of the Colorado River to plant their crops, Armstrong claimed that, if only they had "sufficient land, under irrigation, to give them five acres per capita, well irrigated, they could make a comfortable living." Given CRIC's recent failure, Armstrong called on the federal government to construct an irrigation system to serve the Fort Yuma Reservation. He wrote:

I believe that the best thing for [the Quechans] would be for the Government to build them a ditch and control the water for these people. Experience has shown that where Indians depend on ditch companies for water they generally get a very poor showing.

A ditch could be taken out by the Government and these Indians allotted their land along the same, and made permanently self-supporting.³⁴

Commissioner of Indian Affairs William Jones echoed this sentiment in a January 1902 letter discussing the proposal of a second private enterprise—the Western Irrigation and Improvement Company—to irrigate Quechan lands. According to officials of this new company, CRIC had been unable to initiate work on its proposed canal because it lacked sufficient capital. To overcome this hurdle, officials at Western Irrigation asked Congress to allot the Quechans immediately, then to allow the company to purchase the remaining irrigable lands within the Fort Yuma Reservation at the pre-reclamation price of \$1.25 per acre. Given the estimated \$50-per-acre post-irrigation value of these lands, the company stood to secure a handsome profit from this proposal. Recognizing this,

³⁴ Frank C. Armstrong, Special Agent, to the SOI, November 27, 1901, Box 8, Inspection Reports 1901-1907, Indian Division, Records of the Secretary of the Interior, Record Group 48 [RG 48], National Archives and Records Administration, College Park, Maryland [NARA II].

Commissioner Jones told the Interior Department that this plan would “deprive the Indians of their best lands” and that the “inconsiderable sum” offered for those lands would “hardly make it worth the while for them to enter into such an arrangement.” Moreover, the government’s recent experience with CRIC left Indian officials wary of private irrigation proposals, in general. In light of these facts, Jones told the secretary:

[I]t would seem that if anything is to be done for the Yuma Indians in the way of irrigation, the government should do it alone and not through the instrumentality of any ditch company. The government would then have the entire control and in disposing of the surplus lands could serve and protect the best interests of the Indians.³⁵

In spite of Jones’s good intentions, though, the government’s initial efforts to assume responsibility for irrigation work on the Fort Yuma Reservation did not meet with immediate success. Surveys conducted in 1902 revealed that the cost of building either a ditch or a pumping plant to serve only Quechan lands within the reservation would be too expensive for the government to consider. As Jones wrote in the fall of 1902, the Indian Office was “unwilling” to build an irrigation system for “this small reservation” at “so large a sum as \$65,000, and an annual cost of operation of \$24,000.” Because of these unexpectedly high construction-cost estimates and the inability to sell surplus lands under the government’s various irrigation proposals, Jones briefly reconsidered his position regarding private canal companies. In November 1902, he told the secretary that, perhaps, “a responsible individual or corporation” might actually be able to provide “a more economical means for supplying water to these Indians, than the construction of a system by the Government.”³⁶

³⁵ W.A. Jones, CIA, to the SOI, January 2, 1902, Letter 1472-1902, Box 215, SC 190, Special Cases 1821-1907, Entry 102, RG 75, NARA I.

³⁶ Jones to the SOI, November 29, 1902, Box 8, Inspection Reports 1901-1907, Indian Division, RG 48, NARA II. For the government’s proposals for an irrigation system on the Fort Yuma Reservation, see

The passage of the Reclamation Act prevented Commissioner Jones from having to test this theory. Enacted in June 1902—as Indian officials were scrambling to find a cost-effective means of irrigating Quechan lands—the Reclamation Act granted the federal government broad authority to use proceeds from the sale of public lands in sixteen western states and territories to fund irrigation construction throughout the West. As historian Donald Pisani has pointed out, passage of the reclamation law also became one of the primary means by which the construction of government-built irrigation systems on Indian reservations occurred in the early 1900s. Owing to its prime position along the Colorado River and its status as one of the principal routes through which a canal might ultimately serve the still-undeveloped Imperial valley, the Fort Yuma Indian Reservation appeared destined to be part of a government-constructed reclamation project.³⁷

This destiny was further sealed by the Interior Department’s inclusion of the reservation within a broad withdrawal of lands being considered for possible reclamation in July 1902.³⁸ By the fall of 1903, officials in the newly created Reclamation Service had received authority to conduct surveys of the Fort Yuma Reservation in connection with broader investigations of possible irrigation projects throughout the lower Colorado River basin.³⁹ On the basis of these investigations, the head of the Reclamation Service,

W.H. Code, U.S. Indian Inspector, to the SOI, October 17, 1902; and Walter H. Graves, U.S. Indian Inspector, to the SOI, January 10, 1902; both in Box 8, Inspection Reports 1901-1907, Indian Division, RG 48, NARA II.

³⁷ Act of June 17, 1902, 32 Stat. 388; and Pisani, *Water and American Government*, 155-161. Note that there is no evidence indicating that officials attempted to apply the terms of the 1894 Carey Act—the law that empowered Western states to build irrigation works within their borders—to Quechan lands.

³⁸ Charles Walcott, Director, United States Geological Survey [USGS], to the SOI, October 12, 1903, Letter 9758-1903, Box 334, Letters Received [LR] 1881-1907, Indian Division, Entry 653, RG 48, NARA II.

³⁹ H.C. Rizer, Acting Director, USGS, to the SOI, November 10, 1903; and SOI to the Director, USGS, November 13, 1903; both in Letter 73806-1903, Box 2404, LR 1881-1907, Entry 91, RG 75, NARA I.

Charles Walcott, requested Interior Department authority, under the terms of the 1902 Reclamation Act, to include the Quechans' reservation—along with the Colorado River Reservation located roughly 100 miles to the north—within a “comprehensive” irrigation system that encompassed lands along the Colorado River in California and Arizona.⁴⁰

Since the Reclamation Act required the repayment of all moneys spent on irrigation construction, Walcott noted that the inclusion of Indian lands within reclamation projects would need “special authority from Congress.” Fortunately for Walcott, a recent Supreme Court ruling had significantly eased the process of obtaining legislative authority for such matters. In a January 1904 letter to the secretary, he cited the high court's recent opinion in *Lone Wolf v. Hitchcock* as evidence that Congress now had “full power to dispose of the Indian lands in such manner as it may consider best fitted for the benefit of the Indians.” This meant that government officials did not need to obtain the Quechans' assent to incorporate their lands within a proposed reclamation project, as they had allegedly done during the ill-fated negotiations of December 1893. Unallotted reservation lands, thus, became a potential revenue source to pay back the government for building irrigation systems in the West. Walcott clearly viewed Quechan lands through this lens, touting that his proposed project would leave 20,000 acres of irrigable land in their reservation open for sale to whites, the proceeds of which “could be used to pay into the reclamation fund the cost of irrigating the lands allotted to the Indians.”⁴¹

⁴⁰ Charles Walcott, Director, USGS, to the SOI, January 23, 1904, in Senate, *Indian Appropriation Bill*, 58th Cong., 2d sess., 1904, S. Rpt. 1660, serial 4574, 28.

⁴¹ Charles D. Walcott, Director, USGS, to the SOI, January 23, 1904, in Senate, *Indian Appropriation Bill*, 58th Cong., 2d sess., 1904, S. Rpt. 1660, serial 4574, 28; and Pisani, *Water and American Government*, 1-4, 161-62. Note that, from 1902 to 1907, the USGS had jurisdiction over the Reclamation Service. In 1907, the Reclamation Service became an independent agency within the Interior Department.

Officials in both the Indian Office and the Interior Department wholeheartedly endorsed Walcott's plan. In February 1904, the acting commissioner of Indian affairs advised the secretary of the interior to approve the proposal, claiming it would solve the long-standing problem of providing the Quechans with allotments and irrigation. He later called Walcott's plan "the only practicable method for providing a system of irrigation for the Yuma Reservation." The Interior Department likewise supported the proposition and lobbied for its insertion in that year's Indian appropriations bill, which Congress passed in April 1904. As enacted, the law authorized the secretary to "reclaim, utilize, and dispose of" all irrigable reservation lands under the terms of the Reclamation Act, provided that tribal members received five-acre irrigated allotments. The remaining lands irrigated under the project would be opened to non-Indian settlement. In keeping with the Reclamation Act's repayment requirements, the 1904 legislation also stipulated that the secretary use the proceeds from the sale of the unallotted, irrigable lands in the reservation—at lower, pre-irrigation values—to pay for irrigation construction on the Indians' allotments.⁴²

In his annual report for 1904, the agent in charge of the Fort Yuma Reservation pointed to the passage of the 1904 act as one of the most important events in the history of the Quechan Indians. Echoing the redemptive rhetoric of officials in both the Indian Office and the Reclamation Service regarding the transformative qualities of irrigation and allotment, Superintendent John Spear wrote:

⁴² A.C. Tonner, Acting CIA, to the SOI, February 3, 1904; and E.A. Hitchcock, SOI, to the Chairman, House Committee on Indian Affairs, Feb. 9, 1904; both in Senate, *Indian Appropriation Bill*, 58th Cong., 2d sess., 1904, S. Rpt. 1660, serial 4574, 29-30; A.C. Tonner, Acting CIA, to the SOI, March 17, 1904, Letter 2963-1904, Box 343, LR 1881-1907, Indian Division, Entry 653, RG 48, NARA II; and Act of April 21, 1904, 33 Stat. 189 at 224.

At last it seems that irrigation is in sight for the Yuma Indians. The 'Yuma project,' under the national irrigation act, contemplates the damming of the Colorado River just above the reservation, so that the waters may be diverted to the adjoining lands upon both sides of the river. ... About 18,000 acres will be reclaimed, the Indians will get about 3,000 acres. It may take three years to complete the project. When it is done and allotments are made, the future of the Yuma will be vastly different from their past. There is no doubt in regard to the fertility of their lands or that they will make good farmers.⁴³

While Superintendent Spear seemed certain about the positive changes that would occur under the government's allotment-and-irrigation scheme, Quechan tribal members were far less sanguine about its prospects. Even before Walcott submitted his agency's reclamation plan to Congress, the Quechans had witnessed government engineers conducting irrigation surveys on their reservation. In response, tribal leaders petitioned the Interior Department against any proposals that would disturb their traditional farming methods. J.F. Pasqual, who was then vying for leadership of the tribe, wrote to the secretary in March 1903, informing him that the Quechans had recently held a meeting where they had come to the consensus that they did "not want the pumping plant or gravity system of irrigation on our Reservation." Stating that the Colorado's annual overflow provided "a sufficient supply of water for all purposes," Pasqual claimed that tribal people could "now raise a good crop after the overflow in the valley and they think that they can very well get along with that; in fact they have been self-sustaining through this source of water supply for centuries."⁴⁴

With the passage of the 1904 act and the strongly worded opinion in *Lone Wolf v. Hitchcock* backing their actions, though, government officials did not feel compelled to

⁴³ John S. Spear, Superintendent, Fort Yuma Indian School, to the CIA, August 17, 1904, in ARCIA 1904, 158.

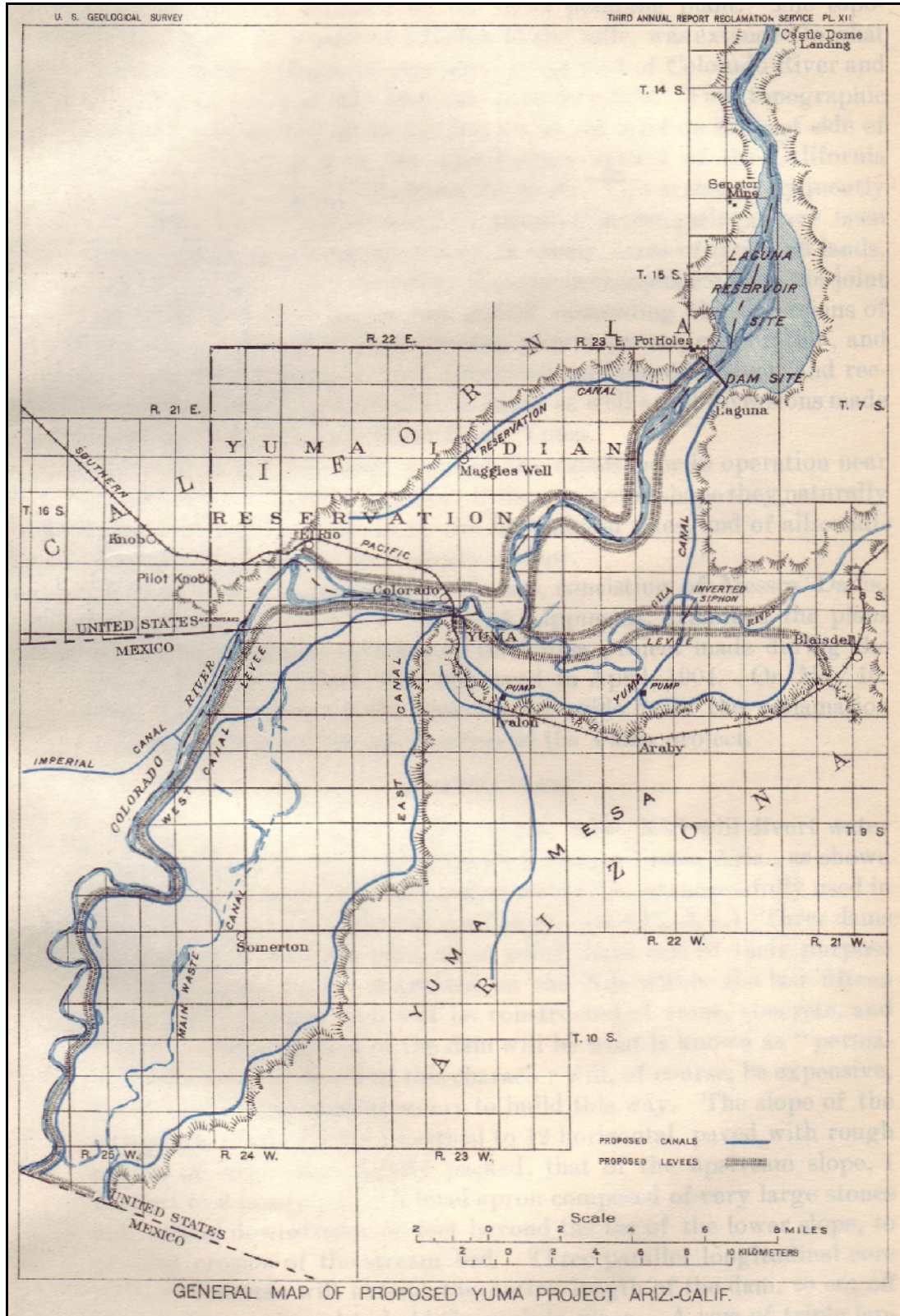
⁴⁴ J.F. Pasqual, Chief of the Yuma Tribe of Indians, to E.A. Hitchcock, SOI, March 4, 1903, Letter 3253-1903 (Enclosure), Box 323, LR 1881-1907, Indian Division, Entry 653, RG 48, NARA II. For further information about tribal leadership at this time, see Bee, *Crosscurrents Along the Colorado*, 54-58.

heed the Quechans' requests. By May 1904—one month after Congress passed the 1904 legislation—the secretary had set aside \$3 million from the reclamation fund for the construction of the newly minted Yuma Project. By the end of that year, Reclamation Service engineers had settled on the basic plans for the construction and operation of the irrigation system. The central feature was the Laguna Dam, which would be situated on mesa lands at the northeastern corner of the reservation. Reclamation officials planned to build two canal systems from the dam to irrigate more than 70,000 acres of private land in Arizona, as well as a hoped-for 20,000 acres of reservation land in California.

In addition to the obvious impact that the Laguna Dam would have on the Colorado River's annual flooding patterns, two other planned features of the Yuma Project would significantly impact Quechan lands. First, Reclamation officials planned to build a system of sluiceways and settling ponds at each end of the dam to prevent silt from being deposited into their canal systems—and, thus, preventing valuable silt deposits from reaching tribal lands. Second, the Reclamation Service planned to construct levees along the reservation's southern and eastern borders to “protect” reservation lands from the annual flooding of the Colorado.⁴⁵ (Map 3)

Despite the flurry of planning activity that occurred in the immediate wake of the 1904 act's passage, actual construction and allotment work on the reservation proceeded at a slower pace. This was due, in large part, to interagency disagreements between the Indian Office and the Reclamation Service. Reclamation engineers, for example, complained about Indian Office delays in allotting the Quechans, which reportedly prevented them from planning their canal systems. Although the Indian Office expressed

⁴⁵ *Third Annual Report of the Reclamation Service, 1903-4* (Washington: GPO, 1905), 63-64, 192-99; *Seventh Annual Report of the Reclamation Service, 1907-1908* (Washington: GPO, 1909), 59-61; and *Eighth Annual Report of the Reclamation Service, 1908-1909* (Washington: GPO, 1910), 53-56.



Map 3: U.S. Reclamation Service, "General Map of Proposed Yuma Project, Ariz.-Calif.," in *Third Annual Report of the Reclamation Service, 1903-4* (Washington: GPO, 1905), 192.

disbelief that the location of the allotments would have any bearing on the canal system, its officials promised to move forward on the allotment work as quickly as possible. The two agencies also quarreled over jurisdictional issues within the boundaries of the reservation. Questions about whether the Reclamation Service had authority over non-irrigable lands within the reservation proved particularly troublesome, especially as these questions related to the tribe's ability to gather wood and other subsistence materials from these areas.⁴⁶

The location and size of the Quechans' allotments, however, stood as the biggest stumbling block to the early development of the reservation portion of the Yuma Project. Writing about this in the summer of 1906, newly appointed Fort Yuma Superintendent Ira Deaver notified the Indian Office that, while the Reclamation Service had initiated construction on the non-Indian side of the project in Arizona, engineers refused to begin work within the reservation until Indian officials had set aside a block of land for the Quechans' allotments. Deaver found this position suspect, telling the Indian Office that he believed this was "only a scheme to get the best land for the white man." Expressing his disbelief about the Reclamation Service's reasons for delaying its work on Quechan lands, Deaver wrote, "It seems to me that a canal located to carry water for a white man would carry water for an Indian as well." Instead of abiding by requests to delineate a large block of irrigable land for the Indians, Deaver believed tribal members should be

⁴⁶ F.E. Leupp, CIA, to the SOI, August 18, 1905, Letter 8642-1905, Box 375; and C.F. Larrabee, Acting CIA, to the SOI, August 14, 1906, Box 397; both in LR 1881-1907, Indian Division, Entry 653, RG 48, NARA II.

allowed to choose their allotments wherever they saw fit and to have “the white man [be] allowed to take what is left.”⁴⁷

Despite Superintendent Deaver’s suggestions and warnings, the Indian Office ultimately acquiesced to the Reclamation Service’s demands about identifying a block of land for Quechan allotments. In the spring of 1907, Indian Office engineers met with Reclamation officials on the reservation to agree on “a tentative selection of a body of irrigable land for Indian allotments” under the Yuma Project’s main canal on the California side of the river. Interestingly, these meetings led to the placement of Quechan allotments in a location that was at odds with that proposed by the Yuma Commission in 1893. In particular, the 1893 negotiations had resulted in a recommendation that the Indians’ allotments be situated “near the headwaters of the canal”—which would have placed the Quechans’ lands on the east side of the reservation, near the later location of the Laguna Dam. By contrast, the 1907 meetings called for the allotments to be located in the south-central portion of the reservation, far removed from the dam. Thus, as a result of these meetings, the lands intended to be allotted to the Quechans in 1893 would, instead, be opened to non-Indian settlement. During hearings held on the reservation in the early 1930s, tribal members told Senate investigators that the Bard unit contained “the best land” in the reservation and asked for a proper “settlement” for the loss of this area.⁴⁸

⁴⁷ Ira Deaver, Superintendent, Fort Yuma School, to the CIA, July 3, 1906, Letter 57532-1906, Box 215, SC 190, Special Cases 1821-1907, Entry 102, RG 75, NARA I. For additional information about the progress of construction on the Arizona side of the Yuma Project, see C.F. Larrabee, Acting CIA, to the SOI, February 28, 1906, Letter 2043-1906, Box 385, LR 1881-1907, Indian Division, Entry 653, RG 48, NARA II.

⁴⁸ W.H. Code, Chief Engineer, Indian Irrigation Service, to the SOI, June 12, 1907, Letter 58300-1907, Box 3691, LR 1881-1907, Entry 91, RG 75, NARA I. For the Yuma Commission’s recommendation in 1893 regarding the location of Quechan allotments, see Washington J. Houston, John A. Gorman, and Peter R. Brady, Commissioners, to the SOI, January 24, 1894, in Senate, *Letter from the Secretary of the Interior, Transmitting a Copy of an Agreement with the Yuma Indians ...*, 10. For tribal assertions that the Bard unit

The agreement produced during these meetings also prompted increased irrigation construction within the reservation's borders. By the close of 1908, Reclamation officials were nearing completion of the levees designed to "protect" Quechan lands from the Colorado River's annual floods. In addition, they were proceeding with the construction of canals on the eastern side of the reservation—on lands that would soon be opened to non-Indian settlement. By the following March, the Reclamation Service had completed construction of the Laguna Dam at the northeastern corner of the reservation, and, by the spring of 1910, the main canals and sub-laterals designed to serve the reservation's "surplus" lands were finished. As construction work within the Fort Yuma Reservation progressed, Reclamation Service officials also prepared the farm-unit plats they would use to advertise the sale of the Quechans' "surplus" lands. By the close of 1909, the preparation of these maps was reportedly "well advanced."⁴⁹

The Interior Department wasted no time in opening the newly irrigated lands within the reservation to non-Indian settlement. In January 1910, Secretary Richard Ballinger issued a public notice, informing prospective settlers that 173 farm units, totaling roughly 6,500 acres in the eastern portion of the Fort Yuma Reservation, would be opened to settlement that spring. Potential purchasers exhibited significant interest in the Quechans' lands, as more than 1,700 applicants entered the lottery for the 40-acre farm units—nearly 10 applications for each tract offered for sale. As outlined in Secretary Ballinger's public notice, each settler was required to pay an additional pre-reclamation cost of \$10 per acre, which the government intended to use in repaying building costs on

contained the reservation's "best land," see Senate, *Survey of Conditions of the Indians in the United States*, Part 17 (Washington: GPO, 1931), 8019.

⁴⁹ *Seventh Annual Report of the Reclamation Service, 1907-1908* (Washington: GPO, 1909), 59-61; *Eighth Annual Report of the Reclamation Service, 1908-1909* (Washington: GPO, 1910), 53-56; and *Ninth Annual Report of the Reclamation Service, 1909-1910* (Washington: GPO, 1911), 77-78.

the Indian portion of the Yuma Project. These added fees did little to lessen the interest in the irrigated tracts within the reservation—by the fall of 1910, settlers had occupied every farm unit, and, by 1911, they were already cultivating more than 2,000 acres within the reservation.⁵⁰

As non-Indians quickly gobbled up the irrigated farm units within the Fort Yuma Reservation, the Quechans still awaited their long-promised allotments. The opening of the reservation prior to allotment—an atypical occurrence that did not reflect standard practice with regard to selling “surplus” lands on Indian reservations in the West—was due, in part, to efforts by Indian officials, Indian supporters, and the Quechans to increase the size of their proposed five-acre allotments. However, this uncharacteristic approach to opening the reservation’s lands also reflected the Reclamation Service’s desire to begin immediately paying back the costs of building the project. As the Indian Office indicated in a 1911 letter to the allotting agent assigned to Fort Yuma, the Reclamation Service had “urged” Indian officials to open some of the reservation’s unallotted irrigable lands, “so as to enable that Bureau to reimburse itself for some of the expenditures connected with the construction of the Yuma project.” Since Reclamation engineers were aware of the ongoing attempts to increase the Quechans’ allotments to 10 acres, they agreed to open a smaller amount of land than they had originally planned to sell.⁵¹

⁵⁰ *Ninth Annual Report of the Reclamation Service, 1909-1910* (Washington: GPO, 1911), 79-80; and *Tenth Annual Report of the Reclamation Service, 1910-1911* (Washington: GPO, 1912), 76. See also R.A. Ballinger, SOI, to D.H. Anderson, Editor, *Irrigation Age*, March 23, 1910, File 8-3: Reclamation Service-Yuma Project-Yuma Indian Reservation, Box 1680, Central Classified Files [CCF] 1907-1936, RG 48, NARA II.

⁵¹ C.F. Hauke, Second Assistant CIA, to Charles E. Roblin, Special Allotting Agent, November 18, 1911, Box 1, Correspondence 1907-1926, Fort Yuma Agency, RG 75, National Archives and Records Administration-Pacific Region, Riverside, California [NARA-Riverside]. I am unaware of any other reservation where the sale of surplus lands preceded both the completion of allotment fieldwork and the issuance of trust patents to individual Indians. The Quechans’ experience may be a singular case, in this regard.

The proposed expansion of the Quechans' allotments, meanwhile, had been an ongoing issue since at least 1906, when Inspector Levi Chubbuck called for enlarging the area authorized for allotment. In making this proposition, Chubbuck surmised that the five-acre allotments provided in the 1904 act "would seem to have been determined on the assumption that five acres is all an Indian will or can use." He viewed the Quechans, however, as a "sturdy and virile" people who could quickly "develop into a thrifty, intelligent lot of farmers," if only they were allowed to secure larger parcels of land.⁵² Although the secretary did not immediately heed Chubbuck's recommendation, it became increasingly difficult to ignore such proposals as the decade wore on. In 1909, Fort Yuma Superintendent Anna Egan added her voice to the growing chorus of those calling for larger allotments, telling the Indian Office, "The land is there, enough to give each man[,] woman and child 10 acres apiece, and why not let them have it; it will be little enough, in the long run, to wrest a living from."⁵³

The Quechans themselves, likewise, petitioned Congress in the summer of 1909 for an increase in their allotted acreage. While the 43 tribal leaders who signed the petition expressed uniform opposition to the proposed allotment and sale of "surplus" lands within their reservation, they claimed that, "if forced upon us, we insist that a much larger share of irrigated land be allotted each member of our tribe." In making their argument, the petitioners claimed that five-acre allotments would be "altogether too small to enable us to support ourselves." Principal among the signatories to the 1909 petition was J.F. (Frank) Pasqual, the tribal leader who, in 1903, had expressed opposition to the

⁵² Levi Chubbuck, Special Inspector, to the SOI, January 25, 1906, Box 8, Inspection Reports 1901-1907, Indian Division, RG 48, NARA II.

⁵³ Anna C. Egan, Superintendent, Fort Yuma Indian School, to the CIA, July 8, 1909, File 91005-1907-Fort Yuma-313, Box 19, Fort Yuma Agency, CCF 1907-1939, RG 75, NARA I.

proposed irrigation systems then under consideration by the Indian Office and the Reclamation Service.⁵⁴

By 1910, members of the Indian Rights Association attached their names to the list of those advocating for larger allotments on the reservation. Writing to the Senate, S.M. Brosius, an agent for the organization, asserted that five acres was insufficient to support any individual farmer in southern California, white or Indian. He further stated that the farm units opened to non-Indians within the reservation would be 40 acres—a figure that stood in stark contrast to the amount of land allowed for individual Quechans. Last, Brosius noted that tribal members had “protest[ed] against the allotment of their lands” and that the sale of their “surplus” lands was “against the wishes of the Indians.” Because of this, he claimed it was the government’s duty to “see that the [Quechans’] interests are fully protected.”⁵⁵ Making pleas to legislators’ sense of righteousness was not the only method of lobbying for larger allotments, though. One California senator, in particular, indicated that threats from Reclamation officials that they would sell off the reservation’s remaining irrigated acreage “and limit the Indians to 5 acres,” played a significant role in his decision to act on the matter.⁵⁶

Irrespective of the ultimate reasons behind its action, Congress finally responded to this steady stream of complaints by passing legislation in March 1911 to increase the size of the Quechans’ allotments from five to 10 acres. Legislators, though, were not entirely magnanimous in enacting the law, since the 1911 act also made the entire cost of

⁵⁴ Yuma Tribe to Congress, August 31, 1909, File 5-1: Indian Office-Fort Yuma-Allotments, Box 1215, CCF 1907-1936, RG 48, NARA II. For the Quechans’ earlier petition opposing irrigation construction, see J.F. Pasqual, Chief of the Yuma Tribe of Indians, to E.A. Hitchcock, SOI, March 4, 1903, Letter 3253-1903 (Enclosure), Box 323, LR 1881-1907, Indian Division, Entry 653, RG 48, NARA II.

⁵⁵ S.M. Brosius, Agent, Indian Rights Association, to Frank Flint, U.S. Senate, December 24, 1909; and Merrill E. Gates, Secretary, Board of Indian Commissioners, to the SOI, December 22, 1909; both in File 5-1: Indian Office-Fort Yuma-Allotments, Box 1215, CCF 1907-1936, RG 48, NARA II.

⁵⁶ *Congressional Record*, 61st Cong., 3d sess., January 25, 1911, 46: 1412.

irrigating the Indians' allotments reimbursable to the government. Congress intended the money from the sale of the reservation's "surplus" lands to cover the reclamation costs made reimbursable by the 1911 act. However, in the event that the revenues from these sales were insufficient to repay the reclamation fund, the law stipulated that any unpaid costs would become a "first lien" against the tribe's allotments, at the close of the 25-year trust period. In effect, this meant that allottees who later gained unrestricted title to their 10-acre parcels were going to face a hefty loan from the government upon receipt of their fee patents.⁵⁷

With the passage of the 1911 act, allotment on the Fort Yuma Reservation moved quickly toward completion. Allotment field work began in the fall of 1911, and, by the following spring, government agents had divvied up the roughly 8,000-acre block of land, reserved for Quechan allotments five years earlier, into individually owned parcels. Although the formal issuance of trust patents for these lands would not be forthcoming until 1914, the field work completed in 1912 brought finality to the long-standing efforts of the Indian Office to irrigate and allot the reservation. After two decades of unflagging attempts to implement their redemptive vision of reclamation and individual ownership on Quechan lands, government officials could finally report the beginning of a "great awakening" for the Indians along these lines. The ultimate impact of irrigation and allotment on the lives of tribal people, however, would prove far different—and much less positive—than federal officials had envisioned.⁵⁸

⁵⁷ Act of March 3, 1911, 36 Stat. 1058 at 1063. Unlike many other tribes in the West, the Quechans ultimately avoided fee-patenting of their allotments. Despite this, the threat of these liens likely had an adverse impact on tribal members' use of project canals.

⁵⁸ Fort Yuma Agency Narrative Report, 1912, Section VII—Allotments; and Fort Yuma Agency Narrative Report, 1914, Section VII—Allotments, p. 22; both in Roll 55, National Archives Microfilm Publication M1011, *Superintendents' Annual Narrative and Statistical Reports from Field Jurisdictions of the Bureau of Indian Affairs 1907-1938* [hereinafter cited as M1011].

4. THE IMPACT OF IRRIGATION AND ALLOTMENT ON QUECHAN INDIAN LANDS, 1910-1940

It is immediately apparent to the most casual observer that a considerable number of the farmers on the Yuma Indian Reservation, included in the Yuma Federal Reclamation Project, are attempting a hopeless and impossible task in trying to support themselves by farming lands that are so badly impregnated with alkali as to be practically useless ... it seems reasonable to predict that the entire area will within a few years be transformed into a swamp or lake.

C.A. Engle, Engineer, Indian Irrigation Service, 1936¹

The Quechans began feeling the impacts of irrigation and allotment almost immediately after the authorization of the Yuma Project—and well before their trust patents were formally approved in 1914. Unlike the earlier changes that had occurred on their lands during the latter half of the nineteenth century, the construction of a reclamation project and the division of their reservation into individually owned parcels left the Quechans with little choice about how—or whether—to incorporate these new transformations into their existing livelihoods. Whereas expanding transportation networks and the growth of non-Indian towns and agricultural settlements in the lower Colorado basin clearly impacted the river and constricted the Indians' ability to shift their habitations as freely as they had in aboriginal times, the allotment of their lands and the construction of a dam and levee system along the Colorado represented a much more abrupt alteration to the Quechans' long-standing lifeways.

During the period leading up to the 1904 authorization of the Yuma Project—and even in the immediate wake of the project's approval—the Quechans remained able, for the most part, to rely on their traditional farming methods and subsistence practices. In

¹ C.A. Engle, Supervising Engineer, Indian Irrigation Service [IIS], to A.L. Wathen, Director, IIS, October 12, 1936, File 5-1 (Part 2): Indian Affairs-Colorado River-Removal of Indians, Box 3395, CCF 1937-1953, RG 48, NARA II.

her annual report for 1897, Sister Mary O’Neil, who headed the Fort Yuma Indian School through much of the 1890s, stated that the Indians continued to “avail themselves of low lands overflowed along the course of the Colorado River to plant their crops,” claiming that they “eke[d] out a very precarious livelihood thereby.”² Indian Office inspectors who visited the Fort Yuma Reservation in the early 1900s likewise noted the Quechans’ continued reliance on the river’s annual overflow for their planting. In 1901, Frank Armstrong indicated that, since neither the government nor private industry had built an irrigation system on their lands, tribal members still “depend[ed] on the overflow for moisture.” Three years later, Levi Chubbuck’s inspection of the reservation revealed that the Indians relied on what he called a “very crude” method of planting, cultivating a wide range of crops including beans, corn, melons, wheat, barley, and potatoes, some of which they grew “in considerable quantities.”³

The steady growth of settlements along the lower Colorado River in the early 1900s—spurred, in part, by the government’s plans to construct large-scale irrigation projects in the area—rendered the Quechans’ efforts to continue their traditional farming practices increasingly difficult. In particular, the periodic low-flooding years that began occurring in the 1870s and 1880s had become more prevalent by the turn of the century. In his annual report for 1900, Fort Yuma School Superintendent John Spear noted that the Colorado’s annual overflow was “less than usual” that spring, forcing the Indians to wage an “everyday battle to procure a living.” The decreasing reliability of the river’s annual floods encouraged many Quechans to seek out employment as day laborers in the

² Mary O’Neil, Superintendent, Fort Yuma Indian School, to the CIA, July 15, 1897, in ARCIA 1897, 342.

³ Frank C. Armstrong, Inspector, to the SOI, November 27, 1901; and Levi Chubbuck, Special Inspector, to the SOI, February 13, 1904; both in Box 8, Inspection Reports 1901-1907, Indian Division, RG 48, NARA II.

nearby town of Yuma, as well as cutting wood for sale to “pumping plants along the Colorado River” and shoveling coal for the Southern Pacific “when no one else could be found to do the work.”⁴ However, in years when the Colorado’s floods were closer to their pre-contact norms—as occurred in 1903—the Quechans would so eagerly “take advantage of this favorable condition” that Spear claimed there was little doubt that the Indians would “avail themselves of the still greater benefit of irrigation.”⁵

Once the Reclamation Service began construction of the Yuma Project, though, it came nowhere near achieving the beneficial results anticipated by Superintendent Spear. In fact, the initial item of construction within the reservation—the levee designed to protect project farm lands from the annual floods of the Colorado—effectively cut off access to the Quechans’ aboriginal farming areas. Moreover, since Reclamation engineers finished building this levee four years before allotment field work was completed on the reservation, tribal members were unable to farm using either their traditional flood-irrigated farming methods or the “modern” techniques envisioned for them after they received their long-promised allotments. Discussing this issue, an Interior Department inspector indicated that, by 1908, the reservation levee had “entirely shut off” the water supply that the Indians had relied on for centuries, except upon a “limited area” of lands situated “between the levee and the river.” This left tribal members “apprehensive as to their immediate future means support.”⁶

⁴ John S. Spear, Superintendent, Fort Yuma Indian School, to the CIA, July 30, 1900, in ARCIA 1900, 480; Spear to the CIA, August 17, 1901, in ARCIA 1901, 530; Spear to the CIA, August 8, 1902, in ARCIA 1902, 166; and Frank Armstrong, Inspector, to the SOI, November 27, 1901, Box 8, Inspection Reports 1901-1907, Indian Division, RG 48, NARA II. For a discussion of the low-flood years that occurred in the 1870s and 1880s, see: Trippel, “The Yuma Indians,” 574; and Castetter and Bell, *Yuman Indian Agriculture*, 7-8.

⁵ Spear, to the CIA, August 20, 1903, in ARCIA 1903, 138.

⁶ Joe Norris, Inspector, Interior Department, “General Inspection and Investigation of Conditions at the Yuma Agency, Reservation, and Indian Boarding School at Fort Yuma, California,” February 24, 1910,

Fort Yuma Superintendent Anna Egan also addressed this issue in her 1910 annual report, noting that the Reclamation Service levees had been a point of contention among the Quechans ever since the government had finished building them. Since the levees held back the Colorado's "overflow waters," tribal members complained that they "had been deprived thereby of their chief source of sustenance, the produce of the gardens they were used to plant, annually, after the overflow had receded." Despite this, Egan reported that some Quechans continued planting, in their traditional manner, on the small patches of land lying between the levee and the river. But she indicated that, often, "the little gardens are washed away" or were unproductive due to low floods, making farming under such conditions "not encouraging." Rather than supporting traditional farming practices on these limited areas, Egan tried persuading the Quechans to accept their future of irrigated-allotment farming, "with some degree of willingness, when the time comes." To do this, she echoed many of the arguments made by irrigation supporters who had come before her, writing in her annual report:

The Yumas will see that they will be able to raise more and better produce under irrigation than they ever could have done in the old way; and besides they will see that they can raise it about whenever they want it, and that they won't, in future, have to depend on the vagaries of the Colorado for a crop.⁷

To further encourage the Quechans' shift toward more modern farming practices, Egan urged tribal members to select and begin working on a 20-acre "experimental farm" located near the Fort Yuma School, while they awaited their allotments. Although some Indians did work on this farm— reportedly becoming "quite proud" of their melon, bean, squash, and corn crops—the vast majority of the Quechans did not participate in Egan's

Box 3, Indian Jurisdiction Inspection Reports 1907-1924, Inspection Division, Interior Department, RG 48, NARA II.

⁷ Fort Yuma Indian School Annual Report, August 17, 1910, Roll 55, M1011, p. 2 and Education Division—Industries Section.

farming venture. She chalked this up to the Indians' "suspicious" nature, which led them to prefer "holding off until they get the lands that have been promised them."⁸ Perhaps more important, though, was the Quechans' desire to maintain their traditional farming practices, even within the context of the significantly altered environmental conditions on their lands. For example, in 1912, when the Colorado River flooded "sufficiently to cover all the land left unprotected by the Government levees," Egan reported, with surprise, that "[t]he water had no sooner receded than the Indians, women as well as men, were at work clearing patches for gardens." She was equally astounded at the Quechans' harvest:

These gardens for the most part will be planted in the old time, primitive manner, but the Indians will, nevertheless, reap a surprisingly large crop of beans, pumpkins, melons, corn etc., and they are accordingly happy over the prospect of an old time Indian harvest. We earnestly hope that their present good fortune will not deter them from taking an interest in clearing their allotments this fall, as we hoped they would.⁹

While some tribal members attempted to maintain their traditional, subsistence-based farming practices, others began to abandon their centuries-old agricultural efforts in favor of wage-labor opportunities on the reservation and in nearby Yuma. Lacking allotments and without access to the traditional farming lands and methods that had so long sustained them, many Quechans came to rely, increasingly, on wages to support themselves. On the reservation, this often meant ditch-digging, dam-construction, and land-leveling efforts on behalf of both the Reclamation Service and the non-Indian farmers who had purchased farm units on the Indians' recently opened lands. Off-reservation, this translated into railroad work, wood-cutting, and domestic service and other common labor in Yuma. Thus, despite the ostensible goals of the government's

⁸ Fort Yuma Indian School Annual Report, August 17, 1910, p. 2; and Fort Yuma Narrative Report, 1911, pp. 10-11; both in Roll 55, M1011.

⁹ Fort Yuma Narrative Report, 1912, Section IV—Industries, p. 2, Roll 55, M1011.

overarching irrigation and allotment policies—which sought to transform Indians into self-sufficient farmers—the early years of the Yuma Project led to a sharp decrease in the Quechans’ agricultural endeavors.¹⁰

Tribal farming efforts were further discouraged by long delays in completing the canals on the allotted lands within the Fort Yuma Reservation. By any measure, canal construction on the Indian allotments within the reservation portion of the Yuma Project lagged far behind the construction activities on the non-Indian lands within the so-called Bard unit that lay just to the east. While Reclamation engineers had completed the canals on the “surplus” reservation lands within the Bard unit before their opening in early 1910, canals remained incomplete on most of the irrigable western portion of the reservation, even after Indian officials finished allotment field work there in the spring of 1912. This issue came to a head in May 1913, when more than 125 Quechans petitioned the secretary of the interior, urging the “immediate completion of the ‘Yuma Project’.” In making this request, tribal members noted that “almost one half the Reservation under allotment at the present time is in a condition where water is not obtainable.”¹¹

It appears that the Indians’ petition may have been prompted, at least in part, by a burgeoning dispute between the Reclamation Service and the Indian Office over unpaid maintenance charges on the project. Outlining these issues in the spring of 1913, Francis Sellew, the Reclamation Service’s project engineer at Yuma, claimed that the Indian Office owed the reclamation fund nearly \$80,000 for construction and maintenance

¹⁰ Fort Yuma Indian School Annual Report, August 17, 1910, Education Division—Industries Section; Fort Yuma Narrative Report, 1911, pp. 15-16; and Fort Yuma Narrative Report, 1912, Section IV—Industries, pp. 1-2; all in Roll 55, M1011.

¹¹ Quechan Tribe to the SOI, May 2, 1913, File: 56339-1913-Fort Yuma-341 [2 of 2], Box 29, Fort Yuma Agency, CCF 1907-1939, RG 75, NARA I. The Bard unit was named after one-term California senator, Thomas Bard, who was instrumental in the passage of the 1904 act authorizing the construction of the Yuma Project and the allotment of Quechan lands.

activities over the previous three years. Sellew also blamed Indian officials for failing to provide the Quechans with the appropriate tools and agricultural instruction to render their farming efforts viable. This, he argued, had led to an extremely limited use of the allotted lands to which water was then available—Sellew claimed, for example, that the Indians had cleared only 100 acres by March 1913, while “less than 50 acres [had] been prepared for crop.” Given this restricted use, he considered it “inadvisable” for his agency “to spend any more money for the extension of these laterals until tangible assistance for these people has become an actual fact.”¹²

Sellew expanded on this discussion later that summer, informing his superiors that Reclamation engineers had completed canals to 3,200 acres “in the eastern portion” of the Indian-allotment section by April 1910. Three years later, they expanded this irrigable area to include another 800 acres, thereby enabling water deliveries to just under half of the Quechans’ 8,200 acres of allotments. By July 1913, though, Sellew claimed that only “140 acres [were] being cultivated by the Indians living upon the reservation” and that farming on the newly extended area was “very slight.” With this information, Sellew’s supervisors told the Interior Department that it would be “a waste of money” to spend the roughly “\$130,000 necessary to build the rest of the laterals” on the Quechans’ lands. Moreover, they asserted that the Indian Office should pay the full cost of maintenance on the entire allotted area—even though construction remained less than half complete—

¹² Francis Sellew, Yuma Project Engineer, U.S. Reclamation Service [USRS], Memo, March 21, 1913, File: 56339-1913-Fort Yuma-341 [2 of 2], Box 29, Fort Yuma Agency, CCF 1907-1939, RG 75, NARA I.

because the irrigable acreage “standing idle” had created operating expenses “nearly as large as if the entire area were being irrigated.”¹³

Commissioner of Indian Affairs Cato Sells vehemently disputed the Reclamation Service’s position. Discussing Reclamation officials’ hesitancy in completing canals on the allotted portion of the reservation, he indicated that numerous reports had shown that the Quechans were “unable to farm their allotments because laterals had not been built to convey water to them.” Sells then asserted that the 1902 Reclamation Act had specified that maintenance fees assessed against project lands were not legally “payable until the Reclamation Service [was] prepared to deliver water upon the land to bear the assessments.” Since these regulations applied “on all reclamation projects as to land owned by whites,” the commissioner saw no “just grounds for making any distinction between such land owners and allotted Indians under the project.” Sells concluded his letter by stating his belief that the Quechans “ought not to be required to pay maintenance where a white settler would not be required to pay, that is, where the ditches have not been built and absolutely no reason exists for paying such maintenance.”¹⁴

Sells further argued that the Reclamation Service’s own delays in building ditches to serve the Quechans’ allotments had stood as the most significant deterrent to Indian farming efforts. In making this case, he noted that tribal members had petitioned the Interior Department, urging the completion of the project on their newly allotted lands. Sells denounced the delayed construction effort on the reservation as a “grave injustice” to the Indians, asserting that, by their “nature,” the Quechans were “lo[a]th to undertake

¹³ Sellow to Louis C. Hill, Supervising Engineer, USRS, July 18, 1913; and F.H. Newell, Director, USRS, to the SOI, February 10, 1914; both in File: 56339-1913-Fort Yuma-341 [2 of 2], Box 29, Fort Yuma Agency, CCF 1907-1939, RG 75, NARA I.

¹⁴ Cato Sells, CIA, to the SOI, December 29, 1913, File: 56339-1913-Fort Yuma-341 [2 of 2], Box 29, Fort Yuma Agency, CCF 1907-1939, RG 75, NARA I.

the huge task of clearing, leveling, breaking, and ditching their farms until, in most cases they have seen water flowing in the ditch by which they expect to irrigate.” While he considered it probable that “several years” might pass before the Quechans farmed all of their allotments, Sells deemed it “an absolute certainty that they never will unless the system [was] completed.” He also lamented that the Indian Office’s “industrial development” programs on behalf of tribal people could not come to fruition “unless water can be put on the land.”¹⁵

On-the-ground examinations of the Yuma Project in the summer of 1914 revealed even more substantial problems in those allotted areas where canal construction actually had occurred. Writing about the results of his investigation, Indian Irrigation Service Chief Engineer William Reed informed Sells that he found a distinct difference in the maintenance activities undertaken by Reclamation officials on the Indian portion of the Yuma Project, as compared to the non-Indian Bard unit lying immediately to the east. In particular, Reed noted that the ditches built on Quechan lands “showed no signs of having been properly or even approximating properly cared for,” with the majority “covered with weeds and brush and in a horrible state for operation.” Conversely, within the Bard unit, the canals “were in a condition to operate successfully, and they were patrolled regularly, and the usual methods of ditch riding were followed.” Reed’s inspection left no doubt that the actual maintenance expenses incurred within the Bard unit were “much greater than on the Indians’ portion,” even though the assessments levied against the Indian Office were equal to those on Bard-unit lands.¹⁶

¹⁵ Ibid.

¹⁶ W.M. Reed, Chief Engineer, Indian Irrigation Service, to the Cato Sells, CIA, July 14, 1914, File: 56339-1913-Fort Yuma-341 [2 of 2], Box 29, Fort Yuma Agency, CCF 1907-1939, RG 75, NARA I.

Even more egregious, however, was the Reclamation Service's use of inferior materials on the irrigation structures serving the Quechans' allotments. In addition to lower standards of maintenance on the Indian portion of the Yuma Project, Reed's 1914 investigation showed that the canals in this area were all built "of lumber, and therefore of short life." Likewise, he found that the bridges and other project-related structures on the Indian side—of which there were reportedly "not enough"—did not meet "the general standard of the Reclamation Service work." By contrast, Reed's inspection of the Bard-unit lands revealed vastly superior conditions. After commenting on his examination of the short-lived wooden structures used on Quechan allotments, Reed wrote, "When I crossed on to the white man's land, I found conditions different. All structures, and plenty of them, are of concrete." Exposing the blatant inequity of this situation, Reed concluded his report by demanding that additional canals on the allotted portion of the Yuma Project "be completed as soon as possible, and that the material and workmanship of all structures on the Indian land should be equal to that on the white land."¹⁷

Reclamation Service officials responded to Reed's report with a series of highly questionable excuses that did little to address the legitimate issues raised by Reed's investigation. Regarding the construction of wooden canals on the Indian portion of the project, Reclamation engineers claimed that, after building the concrete structures in the Bard unit, they realized that "bad roads" within the reservation "and other reasons" had rendered this type of construction far too expensive to continue pursuing. As a means of reducing costs, they deemed it "more economical to resort to the use of wood on the Indian portion of the work." With respect to the differences in the maintenance work completed by the Reclamation Service on Quechan lands, engineers simply argued that,

¹⁷ Ibid.

because “only a few acres were being cultivated by the Indians it was not economical and proper for [them] to spend time and money in operating the canals for the purpose of serving these few acres.” Instead, they claimed that Indian officials and tribal members had agreed to do the work of cleaning and maintaining the Quechans’ ditches on their own.¹⁸

Reed considered these arguments far less than credible. Responding to the claim that concrete canals on the Quechans’ allotments were too expensive, Reed maintained that the costs would “not have been any more, probably not quite as much, to have placed concrete on the Indians’ property, as it was on the white.” This was particularly true, in light of the “well known” permanency of concrete and the “temporary” nature of wooden structures intended for use on irrigation projects. Reed also considered it “strange” that the Reclamation Service would have altered its policy of building concrete canals “just as the structural forces came into contact with the Indian [allotments].” With regard to the differences in the maintenance work completed in the Bard unit and on Quechan lands, Reed found it equally “strange” that Reclamation officials would charge the same fees against the Indian lands, when they had devoted the vast majority, if not all, of their work to the non-Indian side of the project.¹⁹

Ultimately, the two agencies resolved their protracted dispute, in December 1914, by signing an agreement that required the Reclamation Service to complete the canals on the Indian portion of the Yuma Project “in such sequence as the Indian Bureau shall require.” The agreement further stipulated that “concrete structures will be employed instead of wood unless other material is demanded by the Indian Office.” Meanwhile, a

¹⁸ Reed to the CIA, August 6, 1914, File: 56339-1913-Fort Yuma-341 [1 of 2], Box 29, Fort Yuma Agency, CCF 1907-1939, RG 75, NARA I.

¹⁹ Ibid.

board of arbitration would handle the ongoing financial dispute over the assessment of maintenance charges against the Indian portion of the project. By 1916, Fort Yuma Agency officials reported that the Reclamation Service had finished constructing “[p]ractically all” of the ditches on the Indian side of the Yuma Project, allowing tribal members to begin the work of clearing, leveling, and preparing their own lands for irrigated cultivation.²⁰

Although the resolution of this long-standing interagency quarrel would finally bring irrigation to all Quechan lands, this provided little solace to tribal members. Within the first two decades of the twentieth century, the Quechans had not only witnessed the rapid dissolution of their centuries-old cultivation and subsistence practices, but also had waited years for both the allotments and the irrigation system that government officials had begun promising them in the early 1890s. It took until 1912 for the Indian Office to divvy up the reservation into individually held allotments, and it took another two years for tribal members to obtain formal title, in trust, for these lands. By 1914, more than half of Quechan allotments still lacked access to irrigation from Yuma Project canals. Moreover, the levee system built by the Reclamation Service in 1907-8 had rendered traditional farming by the Quechans nearly impossible, except on very limited land areas. Taken together, these factors played a major role in lessening tribal members’ farming efforts during the first 10 years after the authorization of the Yuma Project.

To make matters worse, the Indian Office began implementing a new policy on the reservation, in the mid-1910s, that further discouraged tribal agricultural endeavors.

²⁰ “Memorandum of Agreement between the Reclamation Service and the Indian Bureau for Irrigation on Yuma Reservation,” December 29, 1914, File: 56339-1913-Fort Yuma-341 [1 of 2], Box 29, Fort Yuma Agency, CCF 1907-1939, RG 75, NARA I. See also Fort Yuma Narrative Report, 1915, pp. 15, 19; and Fort Yuma Narrative Report, 1916, p. 18; both in Roll 55, M1011.

Initiated soon after the passage of the 1887 Dawes Act, the government's allotment-leasing program began impacting Quechan lands almost immediately after tribal members obtained trust patents for their allotments in early 1914. Outlining his proposal for leasing the tribe's allotments that February, newly appointed Indian agent Loson Odle asked the Indian Office to adopt "special regulations" that would allow him to "arbitrarily" lease the lands of women, children, and older men who were unable to farm their own lands. Odle advised against leasing the lands for cash rentals and instead supported "improvement" leases that, purportedly, were designed to ready the lands for eventual cultivation by the Indians:

The allotments should be leased for a term not to exceed five years for improvements only[,] which should consist of clearing, leveling, and placing in alfalfa all of the land, constructing necessary ditches, headgates, culverts, flumes, etc., for irrigation, fencing and such other improvements as the term of the lease would justify.²¹

In his 1914 annual report, Odle—who served as the Indian agent at Fort Yuma until 1925—indicated that he had begun devising plans for leasing Quechan lands upon receiving notification of the formal approval of their allotments. Within one month of the Quechans receiving their trust patents, the Indian Office had approved farming leases on nine allotments within the reservation. By the close of 1914, Odle had secured Interior Department authority to lease 19 allotments—or, a total of 190 acres. He noted, however, that additional leases "covering several hundred acres" were then "being prepared or waiting action of the Department." Two years into his nascent leasing program, Odle claimed that he had proceeded with caution in implementing the new policy. In particular, he told the commissioner that he had not leased any Quechan allotments

²¹ Loson L. Odle, Superintendent, Fort Yuma Indian School, to the CIA, February 4, 1914, quoted in Odle to the CIA, December 3, 1914, Box 1, Correspondence 1907-1926, Fort Yuma Agency, RG 75, NARA-Riverside.

“where Indians could possibly farm it themselves with profit.” He further suggested that, as the lessees completed the required improvements on the tribe’s lands, “less [acreage] will be leased each year.”²²

Despite Odle’s assertions, however, non-Indian leasing would come to dominate the reservation during his tenure as agent at Fort Yuma. As historians have shown, the Indian Office’s allotment-leasing policy clearly undermined the professed goals of “self-support and assimilation” championed by allotment supporters of the late-nineteenth and early-twentieth centuries. For the Quechans on the Fort Yuma Indian Reservation, the application of this policy was no different. Although Odle claimed that his intentions were pure and that his actions ultimately would increase Indian farming on the reservation, the actual results of this policy proved just the opposite. From the time the Quechans received their trust patents in 1914 throughout the first half of the twentieth century, allotment leasing, not farming, became one of the primary means of economic support among tribal members on the reservation.²³

This stark reality began to reveal itself as early as 1917, when the Indian Office expanded Odle’s leasing authority. In November of that year, Odle told his superiors that he had brought under lease “practically every allotment which can be leased under present regulations.” However, there were nearly 40 additional allotments that he was unable to rent out, either because he could not “locate the allottees” or because of their “refusal” to sign the lease documents. Upon receipt of this information, the Indian Office empowered Odle to sign leases on behalf of Quechan allottees who were absent from the

²² Fort Yuma Narrative Report, 1914, p. 24; and Fort Yuma Narrative Report, 1916, p. 15; both in Roll 55, M1011. See also E.B. Meritt, Assistant CIA, to the SOI, February 9, 1914, File 5-1 (Part 1): Indian Office-Fort Yuma-Leases General, Box 1216, CCF 1907-1936, RG 48, NARA II.

²³ Janet A. McDonnell, *The Dispossession of the American Indian, 1887-1934* (Bloomington: Indiana University Press, 1991), 43-59; and Bee, *Crosscurrents Along the Colorado*, 69-72.

reservation or whom he deemed “recalcitrant.” Moreover, the office lengthened the time during which Odle had authority to lease Quechan allotments, extending it from five to 10 years. In making this decision, Indian officials stated that the “recalcitrant” Quechans who refused to sign leases were “incompetent” within the meaning of the law and the agency’s leasing regulations. These officials also claimed that Odle’s expanded leasing authority was a “necessary” means of ultimately rendering the allotments “productive.”²⁴

Odle depicted the leasing situation in a similar light, viewing it as a step toward improving self-sufficiency among the Quechans, as well as inculcating Anglo farming methods. Writing in his 1917 annual report, Odle indicated that roughly 300 allotments were under lease, at the expiration of which he expected that “many of the Indians will farm all of their lands.” He also applauded the growing number of non-Indian lessees within the Indian portion of the Yuma Project, claiming that their influence not only modeled modern, market-driven farming techniques for the Indians, but also encouraged the development of a “better feeling ... between the races.” In fact, Odle claimed that, with the ongoing improvements on the reservation, the Quechans would soon become “the richest tribe” in California. And, despite the rapid expansion of leasing on the reservation, he viewed his overarching industrial program as promoting individual autonomy:

[The Quechans] will really be the richest tribe California has in a very short time. By this we mean they will have their very excellent allotments producing in abundance through the efforts of their own labor which means worlds more than wealth obtained through oil and other leases of which the owners know nothing of values, etc.²⁵

²⁴ E.B. Meritt, Assistant CIA, to Loson L. Odle, Superintendent, Fort Yuma School, December 20, 1917, File 5-1 (Part 1): Indian Office-Fort Yuma-Leases General, Box 1216, CCF 1907-1936, RG 48, NARA II.

²⁵ Fort Yuma Narrative Report, 1917, Roll 55, M1011, p. 16, 19.

While Odle and his superiors continued to assert that their leasing policy would eventually promote tribal agricultural efforts, statistics of on-reservation farming during the late 1910s and early 1920s told an entirely different story. In 1917, Odle reported that roughly 3,000 acres were under improvement leases. By 1920, that figure had doubled to more than 6,200 acres—an area that encompassed some 75 percent of the reservation’s allotted lands. During the remaining four years Odle was in office, more than half of Quechan allotments were under lease annually, with leased-acreage figures hovering between 4,300 and 5,300 acres.²⁶ Odle, though, steadfastly supported the leasing program throughout his tenure, telling the Indian Office in 1920 that this “progressive” policy had led to “great progress” among the Quechans. Likewise, in his 1921 report, he told the commissioner that he doubted whether “any other farming community in the United States has made greater improvement.”²⁷

Tribal members, however, were not so certain about the purported benefits of Odle’s leasing program. In the fall of 1928, Patrick Miguel—a graduate of the Carlisle Indian School and a prominent tribal leader throughout the early twentieth century—testified before a Senate committee in Riverside, California, that had been sent to the area in response to the recently published Meriam Report. Discussing the leasing program that predominated on the Fort Yuma Reservation through the mid-1920s, Miguel indicated that Odle had forced many Quechans who wanted to farm their own lands to sign leases instead. In addition, he maintained that the lessees often did not fulfill the terms of their improvement leases, telling Senate investigators: “Most of the agreements called for

²⁶ Fort Yuma Narrative Report, 1917, pp. 16, 19; and Fort Yuma Statistical Report, 1920, pp. 25, 27-28; both in Roll 55, M1011. For leasing figures for the 1921-1924 period, see Fort Yuma Statistical Reports, 1921-24, Roll 56, M1011.

²⁷ Fort Yuma Narrative Report, 1920, Roll 55, M1011, p. 1; and Fort Yuma Narrative Report, 1921, Roll 56, M1011, p. 2.

improvements, leaving lands in alfalfa and fencing, and that was not done. And complaints were made, and nothing done.”²⁸

Miguel noted that these tribal complaints had led to a series of investigations of leasing issues on the reservation between 1921 and 1924. These inquiries, though, led to few substantive changes in leasing practices on the reservation. Discussing the results of these investigations in 1925, Commissioner of Indian Affairs Charles Burke indicated that they had centered on the close relationship between Odle and E.F. Sanguinetti, a prominent businessman in the Yuma area who held a large number of leases on the reservation. In particular, the inspectors sought to determine whether Odle had shown favoritism to Sanguinetti in leasing Quechan allotments and whether the two had “any common interest in the proceeds of any of the leases on the reservation.” However, none of the investigations uncovered sufficient evidence to file charges against Odle. In short, Burke claimed that all of the leases entered into during the late 1910s and early 1920s “were made in accordance with regulations approved by the Department.”²⁹

In spite of these findings, the problems associated with allotment leasing on the reservation led Odle’s successor, Herbert Jolley, to institute reforms that sought to address these ongoing issues. In particular, Jolley hoped to encourage Indian farming, and he took a decided stance against the leasing policy that was in effect when he took office. In his annual report for 1926, he announced a plan to “inaugurate a constructive industrial program over a period of years with a view of getting a larger number of

²⁸ Senate, *Survey of Conditions of the Indians in the United States*, Part 2 (Washington: GPO, 1929), 629-633.

²⁹ Charles Burke, CIA, to John Edwards, Assistant SOI, November 27, 1925, File 5-1 (Part 1): Indian Office-Fort Yuma-Leases General, Box 1216, CCF 1907-1936, RG 48, NARA II. For additional information about the investigation of leasing activities on the Fort Yuma Reservation during the early 1920s, see Senate, *Survey of Conditions of the Indians in the United States*, Part 2 (Washington: GPO, 1929), 526-533, 888-909.

Indians to farm their own allotments and materially reduce the number of leases of individual allotments.” The following year, he reported a measure of success: leases on allotted lands had dropped to about 3,400 acres, while the acreage farmed by Indians was now approaching 3,000 acres. In addition, he reported that all of the remaining leases on the reservation had been converted to a cash-rental basis, rather than continuing the long-standing improvement leases that had neither generated economic security for, nor improved the lands of, tribal members.³⁰

Despite Jolley’s good intentions, however, financial issues in the late 1920s conspired to further discourage tribal agricultural efforts. Beginning in 1924, the newly renamed Bureau of Reclamation (BOR)³¹ began assessing both construction costs and maintenance fees against individual tribal members for the ongoing operations of the Yuma Project. Up to that point, congressional appropriations—allocated from the funds collected through the sale of the reservation’s surplus lands—had covered the charges made against Indian lands within the project. By the mid-1920s, however, both Odle and Jolley began warning tribal members that the costs made reimbursable by the 1910 allotment legislation would soon come due.³²

Upon learning this, nearly 300 tribal members signed a petition in October 1924, calling on government officials to halt the collection of these irrigation charges—which would be set at \$75 per year for each allottee. As the petitioners pointed out, these fees essentially would gobble up any lease earnings they might obtain, since the currently

³⁰ Fort Yuma Narrative Report, 1926, p. 8; and Fort Yuma Statistical Report, 1927, p. 17; both in Roll 56, M1011.

³¹ The Reclamation Service achieved “bureau” status in 1923 and officially changed its name to the Bureau of Reclamation [BOR] that year.

³² Fort Yuma Narrative Report, 1922, Sections IV-V, Roll 55, M1011; and Fort Yuma Narrative Report, 1923, p. 23; and Fort Yuma Narrative Report, 1925, p. 7-8; both in Roll 56, M1011. See also Senate, *Survey of Conditions of the Indians in the United States*, Part 17 (Washington: GPO, 1931), 7979-7983, 8018.

depressed lease rates in the area equaled only \$5 to \$10 per acre for each 10-acre allotment—or a total of \$50 to \$100 per year. As the petitioners pointed out, the \$75 annual irrigation charges were, in some cases, “more than we get for our lands and owing to the meager sum received we do not feel that we can stand the charges.” Moreover, the vast majority of allottees lacked sufficient income to obtain “necessary implements and stock and seed with which to properly till and irrigate” their own lands. Because of this, they felt “compelled by poverty to resort to the leasing of their holdings to white settlers” at rates that would net them a mere \$25 per year, at best.³³

The assessment of irrigation charges against Quechan allotments continued to be a source of acrimony among tribal members when members of the Senate Indian Affairs Committee visited their reservation in 1931. For example, in a prepared statement, John Curran told the committee that relaxing these fees would significantly help struggling Quechan families. Curran further informed the senators that many tribal people did not have enough to eat, were unable to find work, lacked farming equipment, and had too little money to pursue market agriculture. He stated, “[I]f you got enough to go ahead and work your land it is all right, but when you have not got anything you can not work on your land. You have got to eat something.” Likewise, Bernard Jackson, an early advocate of Quechan tribal government, argued that many tribal members, lacking the financial means required to farm their own lands, had given up their “agricultural pursuit[s] and return[ed] to meager day wage for existence.”³⁴

³³ Yuma Indians to the CIA, October 6, 1924, File: 48603-19-Ft. Yuma-341 pt. 1 (3 of 4 folders), Box 30, Fort Yuma Agency, CCF 1907-39, RG 75, NARA I.

³⁴ Senate, *Survey of Conditions of the Indians in the United States*, Part 17 (Washington: GPO, 1931), 8021-8023, 8032-8034.

Although Congress halted irrigation charges against the Indians' lands in the early 1930s—writing off nearly \$850,000 of reimbursable irrigation costs assessed against the tribe—the threat of these fees, nonetheless, had operated as yet another deterrent to Indian farming at Fort Yuma. By the mid-1930s, it had been nearly three full decades since BOR-constructed levees had halted the annual flooding of the Colorado River, and, in the meantime, many Quechan allottees had become accustomed to finding non-agriculturally oriented ways of making a living. Indeed, when anthropologists Edward Castetter and Willis Bell conducted field work on the Fort Yuma Reservation in the late 1930s and early 1940s, they found that the Quechans “prefer not to farm” and, instead, “choose rather to work at day labor if possible.” They also reported that fewer than one-in-ten tribal members earned their living, principally, by farming. Statistics of on-reservation farming from 1932 through 1936 bore this out, indicating that the Quechans farmed an average of only 1,340 acres per year.³⁵

While government officials were instituting policies that continually discouraged Quechan agriculture, the Yuma Project itself was producing devastating effects on the tribe's once-productive farmlands. As noted above, the annual floods of the Colorado River were an essential component in maintaining soil fertility during pre-contact times. Castetter and Bell argued that the heavy silt loads deposited annually by the river were the sole reason why tribes along the lower Colorado were able to cultivate these bottom lands for centuries “without exhausting or depleting the fertility of the soil.” Discussing

³⁵ Leavitt Act of July 1, 1932, 47 Stat. 564; Castetter and Bell, *Yuman Indian Agriculture*, 86-87; and “Study of Ground Water Conditions, Fort Yuma Indian Reservation,” September 1937, Box 60, Entry 657, Irrigation Division Reports and Related Records 1891-1946, RG 75, NARA I, p. 9. In 1936, John Collier indicated that, under the Leavitt Act, the U.S. government cancelled \$844,814 of the \$1.09 million of irrigation costs accrued on Indian lands within the Yuma Project to that point. See John Collier, CIA, “Memorandum for Secretary Ickes,” November 5, 1936, File 5-1 (Part 2): Indian Affairs-Colorado River-Removal of Indians, CCF 1937-53, RG 48, NARA II.

the chemical components that encouraged such productive soils, they noted that the river carried large amounts of nitrogen, potassium, phosphorus, and other “organic matter” that it deposited, each year, onto the adjacent floodplain. Water samples obtained near the reservation prior to the construction of the Yuma Project, for example, showed that the Colorado’s floodwaters carried up to 38 pounds of undissolved nitrogen, as well as averaging 113 pounds of potassium and 10 pounds of phosphorus each year.³⁶

In 1916, Fort Yuma Agency officials experienced these heavy silt loads first-hand when a break in the Reclamation Service levee led to the flooding of Quechan allotments. That year, Superintendent Odle reported that the break in the levee had allowed the Colorado “to flood the entire irrigable part of the Reservation except about 20 acres, doing considerable damage.” He was also astounded that the river had deposited “from four to thirty inches of silt” over the bottom lands, which, he claimed, was now “fertile but difficult to work.” Prompt efforts to repair the levee, however, restored the Quechans’ lands to their post-reclamation status—which kept them “protected” from the “damage” of the Colorado’s annual floods. Unfortunately, such protection also deprived reservation farmlands of the naturally regenerative silt loads that had maintained soil productivity for centuries before the introduction of dams and levees to the region.³⁷

Irrigation structures, though, were not the only factors that played a role in decreasing soil fertility on Quechan lands following the completion of the Yuma Project. Both the introduction of market-based crops and the efforts of lessees to obtain large yields of high-priced agricultural goods, likewise, gradually sapped essential nutrients from reservation soils. By the late 1910s, corn, beans, melons, and pumpkins no longer

³⁶ Castetter and Bell, *Yuman Indian Agriculture*, 12-13. Castetter and Bell also indicated that the river carried a “considerable” amount of “dissolved nitrogen,” as well as the above-mentioned sediments.

³⁷ Fort Yuma Annual Narrative Report, 1916, Roll 55, M1011, pp. 13-14.

dominated Quechan fields. Instead, cotton and alfalfa—the former, notoriously harsh on agricultural lands—had largely displaced these traditional crops. Writing in 1918, an Interior Department inspector noted that “the cotton industry” on the reservation had “grown to large proportions” during the previous three years, in response to high cotton prices during World War I. In 1920, Odle stated that both long- and short-staple cotton still “h[eld] the greatest attention” of lessees on Quechan allotments, due to the continuing high prices for the crop. Despite fluctuations in market conditions over time, cotton remained the predominant crop grown by lessees through the 1920s and 1930s, occupying an estimated 70 percent of the reservation’s leased acreage in 1941.³⁸

In addition to the replacement of traditional, subsistence-based crops with market-oriented ones, the encouragement of “intensive” farming techniques by agency officials led to the further depletion of soil productivity. In his 1920 annual report, Odle remarked that, through the construction of the Yuma Project, federal officials and the Quechans had “taken a small portion of the great desert and helped to transform it into what will soon be known as the greatest agricultural district for the number of acres in the world.” To expedite this transformation, he urged farmers—white and Indian alike—to adopt “more intensive methods in farming,” with the goal of “doubling” the average crop-yield on the reservation. Indeed, Odle viewed the Quechans’ eventual adoption of this type of market-oriented agriculture as a surefire step toward tribal self-sufficiency.³⁹

³⁸ “Report of E.B. Linnen, Chief Inspector, H.T. Brown, Special Agent, and Walter G. West, Supervisor, on the Irrigation Project on the Yuma Indian Reservation in the State of California,” March 9, 1918, File: 22349-1918-Ft. Yuma-341, Box 30, Fort Yuma Agency, CCF 1907-39, RG 75, NARA I. See also: Fort Yuma Annual Narrative Report, 1920, p. 8; and Fort Yuma Annual Statistical Report, 1920, p. 26; both in Roll 55, M1011; Fort Yuma Annual Statistical Reports, 1921-25, Roll 56, M1011; and Castetter and Bell, *Yuman Indian Agriculture*, 87.

³⁹ Fort Yuma Annual Narrative Report, 1920, Roll 55, M1011, p. 7; and Fort Yuma Annual Narrative Report, 1922, Roll 56, M1011.

Unfortunately, these so-called “intensive” agricultural methods often meant that the lessees who dominated reservation farmlands into the 1940s did not implement crop-rotation techniques and, instead, continued to plant the same crops each year, so long as prices remained high. The senators who visited with Quechan tribal members in Riverside in 1928 were aghast to find that agency officials and lessees had failed to institute appropriate crop-rotation methods on the reservation, especially when planting crops such as cotton. Senators discussed this issue with tribal member, Lincoln Johnson, and had this exchange:

Question: [You] Grow about a bale of cotton to the acre don't you?

Answer [Lincoln Johnson, Quechan tribal member]: Some places they get more than a bale ...

The Chairman [Senator Lynn Frazier]: You don't raise cotton each year though?

Answer: Well, they did on the reservation.

Question [Frazier]: Do you think they should raise cotton each year? Don't you think they should rotate; change it?

Answer [Johnson]: I believe it is the best way because the land is going to be poorer and poorer each year.

Question [Frazier]: In order to keep it up they have to rotate crops and use fertilizer.⁴⁰

These senators were well aware of the soil-depleting characteristics of cotton, as well as the importance of using crop-rotation techniques, since they had discussed these very issues with Interior Department Inspector Morgan Doyle just before they heard from Lincoln Johnson. While he did not claim to be a soil scientist, Doyle told the senators that he had ascertained from “agricultural experts” that cotton “t[ook] a great deal out of the soil, more than almost any other crop.” Additionally, he learned from these experts that,

⁴⁰ Senate, *Survey of Conditions of the Indians in the United States*, Part 2 (Washington: GPO, 1929), 661.

“if you continue to raise cotton on the land it will be but a very short time when the land will become impoverished.” Doyle further informed the assembled senators that many of the leases Odle had approved on Quechan allotments during the 1910s and 1920s were granted to E.F. Sanguinetti and his associates, whom Doyle claimed were well-known “cotton growers,” who only wanted “Indian or any land” for growing that crop. Worse yet, the leases approved by Odle did not require crop-rotation or the application of fertilizer, nor did they stipulate the cultivation of “anything but cotton.”⁴¹

While the shift toward market agriculture—and the continued emphasis on cotton production—clearly had deleterious effects on the fecundity of reservation farmlands, the movement away from subsistence-based agriculture also began negatively impacting the health of individual tribal members during the early 1900s. As early as the late-nineteenth century, observers had remarked on the Quechan Indians’ fondness for recently introduced Anglo foods. Writer Eugene Trippel noted in his June 1889 article in *Overland Monthly* that tribal members were “inordinately fond of sugar, candy, pies, cakes, and sweet-meats, which are purchased from the whites.” Although the increasing availability of goods such as “candy, pies [and] cakes” obviously was not ideal from a general-nutrition standpoint, the impact of these items came nowhere near the gradual elimination of subsistence-based crops from the tribe’s farmlands and diets in the early decades of the twentieth century.⁴²

Indeed, historian Clifford Trafzer has maintained that the movement away from subsistence agriculture, in the wake of the Yuma Project’s construction, had serious impacts on the overall health of the Quechan Indians. He argued that, as cotton rapidly

⁴¹ Senate, *Survey of Conditions of the Indians in the United States*, Part 2 (Washington: GPO, 1929), 530-531.

⁴² Trippel, “The Yuma Indians,” 575.

displaced the tribe's traditional crops, "the bodies of Quechan men, women, and children deteriorated," due to a rapid decline of necessary nutrients in their diets—nutrients previously supplied by the corn, beans, melons, and pumpkins grown by tribal farmers. This lessening of vitamin- and nutrient-rich foods from Quechan diets—coupled with the widespread introduction of new pathogens and disease strains into the lower Colorado basin during the late 1800s and early 1900s—led to a general reduction in tribal health. While Trafzer claimed that diseases like tuberculosis and pneumonia remained the principal cause of the tribe's declining health, a lack of nutritious foods also played a key role in lessening the overall well-being of tribal members.⁴³

Increasingly malnourished, the Quechans became more and more susceptible to the new diseases introduced to the region by an ever-growing influx of white settlers. According to Trafzer, the "destruction of [the Quechans'] native foods and cultivated crops," in the early 1900s, was one of the primary factors leading to "a high mortality rate" among tribal members, as inadequate food supplies left them "vulnerable to attacks by invading bacillus." The onset and impact of diseases like tuberculosis and pneumonia became more pronounced among the Quechans, in large part, because of the significant dietary changes that occurred in the early 1900s. Trafzer, in turn, correlated these diseases with large-scale population declines on the reservation. By the 1910s and 1920s, the tribe's population had dropped to barely 800 people, whereas estimates in the 1880s and 1890s had placed their numbers between 1,100 and 1,200.⁴⁴

⁴³ Clifford E. Trafzer, "Invisible Enemies: Ranching, Farming, and Quechan Indian Deaths at the Fort Yuma Agency, California, 1915-1925," *American Indian Culture and Research Journal* 21, no. 3 (1997): 83-95.

⁴⁴ Trafzer, "Invisible Enemies," 85-86, 91-95, 106. Eugene Trippel indicated that census counts taken in 1886 and 1888 found a total of 1,137 and 1,126 Quechans, respectively. See Trippel, "The Yuma Indians," 564.

A lack of sufficient food was a recurring source of concern among the Quechan witnesses who testified before Senate investigators in the late 1920s and early 1930s. John Curran, for example, told the committee, in 1931, that many tribal members did not have enough to eat, making it difficult for them to farm their lands or to look for work. Three years earlier, Patrick Miguel had emphasized the inadequacy of the food provided to Quechan children at the reservation boarding school. Miguel indicated that school officials fed the children “a diet of bread and gravy” for breakfast “every morning of the year,” while the “beans, flour, rice, and crackers” they received were often “infested with weevils.” Noting that school officials prepared these foods in an “unclean” kitchen where “cockroaches, flies, and mice abound,” Miguel claimed, “It is no wonder that the children are infested with body sores and itch on such a poor diet.” Trafzer’s study backed up such statements, showing that the influence of dietary changes and disease hit Quechan children—infants, in particular—especially hard.⁴⁵

In addition to lowered levels of tribal health, the transition toward market-oriented agriculture on the Fort Yuma Reservation also had significant impacts on the dynamics of Quechan families. As anthropologists who have studied the tribe have noted, the tribe’s traditional, subsistence-based farming activities relied on the coordinated activities of men, women, children, and additional family members such as aunts, uncles, and grandparents. Robert Bee indicated that, for traditional Quechan farmers, the “extended family household was the basic cooperative unit of subsistence,” arguing that these “composite families” represented “an optimal unit of agricultural exploitation,” in the pre-reclamation period. Bee further noted that men and women shared in the work of

⁴⁵ Senate, *Survey of Conditions of the Indians in the United States*, Part 17 (Washington: GPO, 1931), 8021; Senate, *Survey of Conditions of the Indians in the United States*, Part 2 (Washington: GPO, 1929), 539; and Trafzer, “Invisible Enemies,” 92-101.

cultivation, thereby lessening the amount of “heavy individual labor.” Meanwhile, women and children generally assumed the duties of wild-food gathering—sometimes accompanied by men, when these excursions lasted beyond one day.⁴⁶

As more and more Quechan men and women left the once-fertile fields of their traditional lands for wage work in Yuma, on project canals, or on the nearby railroad, the long-standing structure of these family units began to unravel. While no detailed studies have investigated this particular issue, it is reasonable to conclude that the breakdown of the tribe’s subsistence-oriented agricultural economy had fundamental effects on their familial and social dynamics. By the early decades of the twentieth century, men and women no longer worked, side by side, in the fields. And Quechan children, who were forced to attend reservation boarding schools, became less able to join their parents on wild-plant gathering expeditions. Trafzer counted these kinds of familial dislocations among the numerous reasons for the tribe’s declining health during the first half of the twentieth century. Bee, meanwhile, noted that, although the “nuclear family” was not “a viable unit in the traditional horticultural economy of the Quechans,” it was well-suited to the “Anglo lifeways,” to which tribal members had become increasingly adapted.⁴⁷

By the 1930s, the negative effects of the federal government’s turn-of-the-century irrigation-and-allotment regime had been clearly demonstrated through a steady reduction in Quechan agriculture, the deteriorating fertility of reservation fields, and the declining health of tribal members. However, the construction of the All-American Canal across

⁴⁶ Bee, “Quechan,” in *Handbook of North American Indians*, vol. 10, 88-89; Bee, *Crosscurrents Along the Colorado*, 4-5; and Castetter and Bell, *Yuman Indian Agriculture*, 139-144, 179-186.

⁴⁷ Bee, *Crosscurrents Along the Colorado*, 78-80; and Trafzer, “Invisible Enemies,” 91-92, 111-112. Elaborating on his argument about the negative impacts of social and familial dislocation, Trafzer claimed that, in the early 1900s, the Quechans “faced a cultural and social anomie” that led to “[s]erious social depression,” which, in turn, rendered them “more susceptible to disease.”

the reservation's northern mesa lands in the late 1930s served as a final example of the immense failure of these policies on Quechan lands. The canal finally brought to fruition the long-standing dream of private entities like the Colorado River Irrigation Company—which had hoped to irrigate a vast empire of lands in California's Imperial valley with Colorado River waters, diverted entirely upon American soil. With the passage of the Boulder Canyon Act in 1928, that vision took one step closer to becoming a reality. However, since the canal had to cross the Quechans' non-irrigable mesa lands, the Fort Yuma Reservation, once again, stood as the linchpin to the Imperial valley's ultimate development.⁴⁸

When BOR officials began formalizing plans for the construction of the All-American Canal in the mid-1930s, a group of more than 200 Quechan tribal members petitioned the Indian Office, protesting the canal's construction “without the proper settlement.” As indicated by Commissioner of Indian Affairs John Collier in May 1935, the “settlement” sought by the tribe included not only monetary compensation, but also assurances that BOR engineers would construct “intercepting drains” to prevent seepage from accumulating on their lands. Moreover, the Quechan petitioners called on the BOR to pay for any canal-related damages that might occur on their allotments—which were located in the valley below the proposed line of the All-American Canal—in the event of the canal's failure. Finally, the tribe sought rental payments for any power development undertaken by the BOR within the boundaries of the reservation.⁴⁹

⁴⁸ deBuys, *Salt Dreams*, 159-63. As deBuys points out, the Imperial valley's often-unpredictable supply of irrigation water had run through Mexico for the roughly 40 years prior to the All-American Canal's construction. Note, too, that the All-American Canal supplied no water to Quechan lands.

⁴⁹ John Collier, CIA, to Elwood Mead, Commissioner, Bureau of Reclamation [BOR], May 10, 1935, File 5-1 (Part 2): Indian Affairs-Colorado River-Removal of Indians, CCF 1937-53, RG 48, NARA II. Additionally, the tribe requested that they share the proceeds from the excavation of any mineral or sand-and-gravel deposits on their lands.

In response, however, BOR officials argued that the Quechans did not hold title to the mesa lands where the canal would be located, thereby rendering their request for a “proper settlement” moot. Citing an obscure provision of the tribe’s ill-fated agreement of December 4, 1893, BOR Commissioner Elwood Mead claimed that the area across which the All-American Canal would be built included only “rough, non-agricultural land, none of it being susceptible of irrigation.” Since he believed that the tribe had relinquished title to all of the lands within their reservation, except for the 10-acre irrigable tracts allotted to them in 1912, Mead asserted that the Quechans had “no interest” in the area traversed by the line of the canal and that title to these lands was “vested in the United States.” Owing to this understanding, Mead informed Collier that the BOR would “continue construction of the All-American Canal” without further consideration of the Quechans’ settlement demands.⁵⁰

Despite the Indian Office’s stringent opposition to this reading of the 1893 agreement, a legal opinion issued by Interior Solicitor Nathan Margold in January 1936, upheld Mead’s view. Adopting a narrow interpretation of the tribe’s more-than-40-year-old agreement—the provisions of which had not been fulfilled by the Colorado River Irrigation Company—Margold argued that, although the roughly 30,000 acres of mesa land within the 1884 boundaries of the Fort Yuma Reservation had not technically become part of the “public domain,” the Quechans no longer held title or interest in the lands. Margold’s ruling, thus, disallowed tribal members from receiving compensation for the construction of the All-American Canal across their reservation. Moreover, the

⁵⁰ Mead to the CIA, July 15, 1935, File 5-1 (Part 2): Indian Affairs-Colorado River-Removal of Indians, CCF 1937-53, RG 48, NARA II.

settlement provisions requested by Quechan petitioners in the spring of 1935 became legally ineffective.⁵¹

As it turned out, though, BOR officials would have been wise to heed the Quechans' demands. Not only did the construction of the All-American Canal effectively deprive tribal members of ownership of roughly two-thirds of their original reservation, but it also led to the seepage problems that they had feared would occur. By the fall of 1936, Commissioner Collier was receiving reports from Indian irrigation officials informing him of their concerns that the construction of the All-American Canal would "greatly aggravate" the already-existing problems of seepage and alkali build-up on the tribe's allotments. These officials argued that, "unless adequate drainage facilities are constructed and maintained," the canal's construction would doom Quechan lands "to complete destruction from rising ground water." In response, Collier formulated plans to remove the Quechans to the Colorado River Reservation, noting that the BOR continued to adopt a more "optimistic view" of the situation and did not plan to build additional drainage facilities.⁵²

An investigation of the reservation's ground-water levels conducted by Indian Irrigation Service [IIS] officials in September 1937 further backed Collier's arguments. The report found that the reservation had begun experiencing rising ground-water levels even before the completion of the All-American Canal, noting that "the water-table stood within 5 feet of the surface over 18 percent of the Indian area." Moreover, the study found that the primary reason why such "a large part" of the Quechans' lands were "in a

⁵¹ Nathan Margold, Solicitor, Interior Department, Opinion M. 28198, January 8, 1936, File 5-1 (Part 2): Indian Affairs-Colorado River-Removal of Indians, CCF 1937-53, RG 48, NARA II.

⁵² A.L. Wathen, Director of Irrigation, BIA, to John Collier, CIA, October 20, 1936; and Collier, "Memorandum for Secretary Ickes," November 5, 1936; both in File 5-1 (Part 2): Indian Affairs-Colorado River-Removal of Indians, CCF 1937-53, RG 48, NARA II.

vulnerable position with respect to ground water” was due to the BOR’s failure to build “adequate drainage facilities” on the Indian portion of the Yuma Project during the initial construction of the system. IIS officials argued that this problem would only worsen once the All-American Canal became operative. Although they expected to face “almost certain controversy” over the canal’s anticipated impact on reservation farmlands, these officials maintained that, without additional drainage facilities, seepage from the canal would “water-log a substantial part of the reservation.” If such a system were not built—at an estimated cost of \$140,000—the report recommended serious consideration of Collier’s proposal to remove the Quechans from their reservation.⁵³

Although the plan to remove the Quechans ultimately did not materialize, the anticipated seepage and alkali damage on the Fort Yuma Reservation did. In June 1941—nearly one year after the All-American Canal went into operation—E.C. Fortier, district engineer for the IIS, reported that these problems had become especially acute on the Indian allotments within the Yuma Project:

As a result of operation of the All-American Canal and lack of adequate drainage facilities the ground water situation on the Indian lands is more serious at this time than at any time in the history of the project. This situation was serious in 1937 when we made the last study. It is definitely worse at this time. In the past 2½ years the ground water underlying Indian lands has risen an average of 2½ feet in the irrigated area.⁵⁴

Fortier maintained there was “conclusive proof” that seepage and alkali accumulation was directly attributable to the operation of the All-American Canal and that these problems “constitute a real menace to the security of the project.” Perhaps even more

⁵³ “Study of Ground Water Conditions, Fort Yuma Indian Reservation,” September 1937, Box 60, Entry 657, Irrigation Division Reports and Related Records 1891-1946, RG 75, NARA I, pp. 1-6.

⁵⁴ E.C. Fortier, District Engineer, Indian Irrigation Service, to A.L. Wathen, Acting Chief Engineer, Office of Indian Affairs, June 2, 1941, in “Study of Ground Water Conditions, Fort Yuma Indian Reservation, California, Period of September 1937 to February 1941,” Box 59, Entry 657, Irrigation Division Reports and Related Records 1891-1946, RG 75, NARA I.

appalling was Fortier's realization that the BOR had already built drainage facilities to address such problems on the non-Indian farmlands within the reservation. Because of the presence of these drains, ground-water levels within the Bard unit—immediately east of the Quechans' allotments—were “appreciably lower than in 1937.” Meanwhile, the Indians' lands had uniformly shown “sharp rises in the water table” during that time.⁵⁵

Even when BOR officials finally began constructing a series of drains to alleviate the groundwater problems on the Quechan allotments during the early 1940s, IIS officials doubted the long-term efficacy of these structures. Writing in October 1942, Fortier and three other Indian Office engineers argued that it was highly unlikely that the drainage system then under construction on the Indian portion of the project would be “fully effective” in controlling “future ground-water levels.” Their report also discussed the extremely low use of the Yuma Project by the Quechans, pointing to the reportedly “abundant opportunities for work” in Yuma and asserting that the Indians appeared “entirely satisfied with a wage economy.” In fact, Fortier and his colleagues doubted whether many Quechans “would take advantage of the opportunity to farm, even if the lands were prepared for them and funds provided for operation.”⁵⁶

While this early 1940s report reflected BOR's ongoing biases against the Quechans—biases that had defined much of the history of the Yuma Project's construction, from the early 1910s forward—it also reflected the larger impacts of allotment and irrigation on the Indian people who had occupied these lands for centuries. Despite the efforts of BOR officials to address problems created by the project, they were

⁵⁵ Ibid.

⁵⁶ C.H. Gensler, A.L. Walker, E.C. Fortier, and Herbert V. Clotts to the CIA, October 3, 1942, in Indian Irrigation Service, “Joint Report on Drainage & Economic Conditions, Fort Yuma Indian Reservation, California,” October 3, 1942, Box 60, Entry 657, Irrigation Division Reports and Related Records 1891-1946, RG 75, NARA I.

unable to reverse the more pervasive damage that the federal government's allotment and reclamation policies had inflicted on the Quechans' lives and livelihoods during the previous half century. By the mid-1900s, these two key components of the assimilationist agenda had fully transformed a once-agriculturally-oriented tribe into a group of people who relied largely on wage work and lease rentals for their survival.

5. CONCLUSION

A half-century before seepage from the All-American Canal inundated the farmlands of the Fort Yuma Reservation—increasing soil alkalinity and threatening the viability of the Yuma Project—the Quechan Indians had maintained a livelihood that had sustained them for at least the previous 300 years. Adopting a multifaceted subsistence system that relied on cultivated agriculture, the semi-cultivation of wild plants, and seasonal gathering activities, the Quechans had, since their southward migration to the junction of the Colorado and Gila rivers sometime in the 1600s, relied, significantly, on agriculture for their support. Tribal members were well-situated for farming, as they occupied the fertile floodplain along the banks of the Colorado, near its confluence with the Gila, in the southeastern corner of present-day California. Using the river’s annual, silt-laden floods for irrigation and actively managing the bottom lands on which they resided, each year the Quechans could count on raising abundant crops such as corn, beans, pumpkins, and melons in the region’s rich soils once floodwaters had receded.

Events that occurred in the latter half of the 1800s challenged the continuation of these traditional lifeways. The establishment of a military post on tribal lands in the early 1850s—and the subsequent development of transportation networks; the growth of the nearby town of Yuma, Arizona; and the creation of the Fort Yuma Reservation—placed increasing demands on the region’s resources, as well as expanding the numbers of white settlers in the area. By the 1870s and 1880s, the yearly floods of the Colorado, upon which the Quechans had depended for centuries to fertilize their lands and cultivate their crops, were becoming less reliable. Moreover, the growing wage-labor opportunities in Yuma had begun luring some Quechan tribal members away from their fields and into an

Anglo economy focused more on money than on subsistence farming. The Quechans, though, were largely able to weather these various storms, adapting their livelihood in subtle ways that allowed them to maintain their traditional subsistence strategies within an ever-changing social, political, and environmental landscape.

The dawn of the twentieth century, however, marked the beginning of serious efforts to implement the two, deeply intertwined federal policies that would permanently alter the complexion of Indian lands throughout the West, including those of the Quechan Indians—irrigation and allotment. Situated as they were along the fertile floodplain of one of the West's largest and most important rivers, the Quechans became an early target for policymakers who viewed allotment and irrigation as a means of assimilating tribal groups into the larger American society. In the arid Southwest, these two overarching policies went hand in hand. By partitioning tribally held reservation lands into individually owned allotments and by building large-scale irrigation systems, federal officials believed they would position Indian people for a prompt movement toward their overriding Jeffersonian vision of agricultural independence. In short, policymakers theorized that, through irrigation and allotment, tribes would gradually adopt Euro-American cultivation practices and, thereby, become self-sustaining, yeoman farmers.

It mattered little to these officials that tribal groups like the Quechans had supported themselves through agriculture for centuries prior to contact with the Anglos. Of primary importance to them was that the Quechans' subsistence-based farming did not match their idealized conception of individual, market-oriented agriculture. Aligning the tribe's agricultural efforts more closely with this vision became the singular focus of both private irrigation companies and Indian officials during the 1890s and early 1900s.

Following the colossal failure of private entities to irrigate the Fort Yuma Reservation, the government ultimately irrigated and allotted the tribe's lands under the authority of the 1902 Reclamation Act. The project developed by the Reclamation Service ultimately envisioned the irrigation of nearly 90,000 acres of land, with fewer than 15,000 included within the boundaries of the Fort Yuma Reservation and the remainder lying south and east of Quechan lands, in Arizona.

Because of the closely linked nature of irrigation, allotment, and surplus-land sales and due to the repayment requirements stipulated in the Reclamation Act, the inclusion of Quechan lands within the Yuma Project led to the loss of a large amount of fertile land formerly farmed by tribal members. In effect, the legislation authorizing allotment and irrigation construction on the Fort Yuma Reservation made project costs for Indian allotments repayable through the proceeds obtained from surplus-land sales. By 1909, Yuma Project engineers had finished building both the Laguna Dam—the principal diversion structure that supplied project canals and prevented the accumulation of silt therein—and a system of flood-prevention levees along Quechan lands. Within a year, the Interior Department opened surplus lands within the so-called Bard unit to white settlers. It would take another four years for Quechan allottees to obtain trust title to their 10-acre, irrigable allotments. All the while, federal officials continued to espouse hopeful rhetoric regarding the transformative impact of allotment and irrigation on the Quechans.

While the implementation of these two policies certainly was transformative, the changes wrought by irrigation and allotment on the Fort Yuma Reservation came nowhere near the lofty and munificent goals of their supporters. For example, despite the technological know-how of Reclamation Service engineers, officials did little to consider

the intimate, place-based knowledge that the Quechans had developed through centuries of farming in this region. As anthropologists later demonstrated, the annual overflow of the Colorado River—which deposited large amounts of nitrogen-rich silt upon the river’s floodplain—was essential to maintaining soil fertility and preventing alkali build-up on reservation bottom lands. The construction of the Laguna Dam and the Yuma Project’s levee system not only prevented the Quechans from continuing their traditional, flood-irrigated farming methods, but also contributed to the gradual lessening of soil fertility along this portion of the lower Colorado.

Government actions in the wake of building the Yuma Project further undermined the Quechans’ agricultural endeavors, in spite of the ostensible goals of the turn-of-the-century irrigation and allotment policies. For one, the Reclamation Service’s construction activities on the Indian portion of the Yuma Project lagged far behind the agency’s efforts on the farm units of the Quechans’ non-Indian counterparts. While project construction proceeded quickly on the white-owned surplus lands in the Bard unit and in Arizona, it took until the mid-1910s for Reclamation officials to complete the canals on Quechan allotments. Without canals to serve their lands and with project levees preventing them from farming in their traditional manner, more and more Quechans turned toward wage-labor opportunities in Yuma, to construction work on the project, and to prospects with the nearby Southern Pacific Railroad to support themselves.

Another governmental policy associated with the broader allotment regime served to further discourage Quechan farming efforts, following the construction of the Yuma Project. Soon after tribal members received trust patents for their allotments, and as Reclamation Service engineers were finally nearing completion of the canals to Quechan

lands, officials who oversaw the tribe's affairs asked for—and quickly received—permission to lease the newly allotted lands within the reservation. Although this plan was ostensibly designed to prepare Quechan allotments for eventual cultivation by their Indian owners, it ultimately encouraged non-Indian lessees to obtain control over the vast majority of reservation farmlands. Despite efforts to encourage tribal members to farm their own allotments in the late 1920s, white lessees continued to control a significant proportion of these lands throughout the 1930s and into the 1940s.

While federal officials were instituting various policies that discouraged Quechan agriculture, the Yuma Project was having deleterious impacts on the health of both reservation farmlands and tribal members themselves. In particular, the shift away from the Quechans' traditional, subsistence-based crops toward market-oriented ones like cotton had decidedly negative effects on reservation soils. While halting the Colorado's annual floods had deprived Quechan lands of their yearly dose of naturally regenerative silt, the replacement of corn, beans, pumpkins, and melons in tribal fields with cotton—which was often planted without the benefit of crop-rotation techniques—contributed to a steady decrease in soil-fertility levels through the first half of the twentieth century. At the same time, the substitution of cultivated crops with Anglo foods in Quechan diets encouraged a rapid decline in tribal health. Coupled with the social dislocations caused by the Indians' movement away from traditional agriculture, the alteration of tribal diets left the Quechans increasingly susceptible to disease, ill-health, and even death.

Seen in this light, the inundation of reservation farmlands by seepage from the All-American Canal in the early 1940s simply represented the final occurrence in a long line of events that had negatively impacted the health and welfare of the Quechan Indians

and the lands upon which they had subsisted for centuries. While this incident seemed especially abhorrent—given that both the Quechans and Indian officials had forewarned irrigation engineers of the seepage-related problems that might occur, and given that the reservation did not benefit, in any way, from the canal’s construction—the history of the All-American Canal’s construction was ultimately representative of the broader impacts of irrigation and allotment on the tribe’s lands. By the time Reclamation officials turned water into the canal in 1940, very few Quechan allottees were farming their own lands; the once-fruitful soils of their reservation were becoming decreasingly fertile; and the bodies of Quechan men, women, and children were reflecting the ill-effects of an entire generation disconnected from traditional agriculture. In a sense, then, the near-removal of the tribe to the Colorado River Reservation, in the wake of the canal’s construction, was a continuation of already-existing themes in the early-twentieth-century history of the Quechans.

As with many other agriculturally oriented tribes in the West—including the Tohono O’odham and Pima Indians studied by historians David Rich Lewis and Donald Pisani—the ultimate impact of the federal government’s irrigation and allotment policies was reflected, most visibly, in a sharp decline in Indian farming. As Lewis found, by the latter half of the twentieth century, Indian agriculture had mostly become “a part-time operation for individuals supporting their families through wage work.” Meanwhile, on reservations where the government constructed irrigation systems, these projects often became dominated by non-Indian farmers who “benefited from irrigation systems paid for by Indian peoples.” The history of the Yuma Project reflects these larger trends in

Native American history, in that it led both to a steep decline in Quechan agriculture and in the eventual takeover of an Indian-financed irrigation project by white settlers.¹

Coupled with this decline in tribal farming, however, was the gradual degradation of the lands and the environmental landscape upon which tribes like the Quechans had supported themselves for centuries. As Richard White found among the tribal groups he studied—the Choctaws, Pawnees, and Navajos—the devastation of aboriginal lands and the varied subsistence systems that they supported often ushered in tribal dependency. Likewise, Lewis argued that the refusal of federal officials “to recognize that in some cases Indian farming techniques proved better adapted to the reservation environment than Anglo techniques” meant that “both Indian farmers and the land suffered.” This widespread suffering, in turn, led to the wholesale transformation of “functional” subsistence systems into “dysfunctional” ones.²

This process of dismantling once-viable subsistence systems meant different things to different tribal groups. And it had different ecological, social, and political ramifications for different Indian nations and the widely varying landscapes they occupied. The allotment and irrigation policies of the late 1800s and early 1900s clearly affected tribes that relied, principally, on hunting, fishing, and gathering for their subsistence far differently than these policies impacted the Quechan Indians of southeastern California. By studying the impacts of these policies on a range of tribal groups—and their varied responses thereto—we gain further insight into a highly important era in Native American history. My hope is that, read together with works such as Lewis’s *Neither Wolf Nor Dog* and Pisani’s *Water and American Government*, this

¹ Lewis, *Neither Wolf Nor Dog*, 169-171.

² *Ibid.*, 171-173; and White, *The Roots of Dependency*, xiii-xix, 315-323.

thesis will help to elucidate both the general and the tribally specific themes present in this significant period in the history of American Indians.

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