THE SWORD OF DAMOCLES:

PIMA AGRICULTURE, WATER USE AND WATER RIGHTS, 1848-1921

By

David H. DeJong

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Signed: David Henry DeJong
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ABSTRACT

This study identifies the historical factors that impacted Pima agriculture, water use and water rights in south-central Arizona between 1848 and 1921. Federal land and resource policies, especially federal Indian policies, impacted the dynamics of Pima agriculture and water use during these crucial years when the federal government utilized economic liberalism to open the West to homesteading and facilitate the development of the region’s vast resources.

As an agricultural people, the Pima did not passively accept these policies and events. Rather, they proved adaptive, demonstrating their resourcefulness in important ways. In response to water deprivation and infringement of their water rights, the Pima reduced the amount of land they cultivated. While before 1880 they had increased their cultivated acreage and expanded their trade networks, in the years after they creatively found ways to keep land in production despite water shortages. As the water crisis deepened, the Pima abandoned their least productive lands. In the midst of great deprivation, they relocated (or abandoned) a number of villages and scores of fields in an attempt against great odds to maintain their agricultural economy. To make the most of their diminishing water resources, the Pima adapted by growing small grains such as wheat and barley, even when these crops no longer proved to be economically viable in Arizona. While not new to their crop rotation, the Pima relied almost exclusively upon these crops by the 1910s since they required considerably less water than others.

Because the Pima had prior and paramount rights to the water and were wrongfully deprived of their rights to the use of water, their water rights struggle raised a
metaphorical Damoclean sword above the heads of those non-Indian farmers who used the water. This study, therefore, focuses on the history of water use and agricultural production among the Pima Indians between 1848 and 1921 and argues that without infringement of their rights to water, the Pima would have equaled and perhaps surpassed the local agricultural economy.
TIMELINE

1744  Pima cultivate wheat in their fields along the Gila River
1849  Some 20,000 49’ers purchase surplus Pima food crops in the villages
1850  Pima demand gold and silver coin as the medium of exchange
1854  Gadsden Purchase Treaty brings U.S. administrative control
1858  Butterfield Overland Mail Company passes through the villages
1858  Pima assert sovereignty over all their land and resources
1859  Pima Reservation (64,000 acres) established
1862  Homestead Act encourages settlement of the West
1865  Pima serve as volunteers in the territorial militia
1866  Pima sell over 2,000,000 pounds of wheat
1869  Florence settlers waste water from the Gila River
1873  Pima prospect for new land in the Indian Territory
1877  Desert Land Act requires settlers to apply water to their land
1878  U.S. Army intervenes on behalf of the Pima
1878-1883  Drought conditions cause hardship among the Pima
1879  More than 2,500 Pima and Maricopa live off the reservation
1886-1889  Florence Canal constructed and deprives Pima of their water
1892-1904  Years of starvation among the Pima
1892  Cutting of the Pima mesquite _bosques_ begins
1900  Pima cultivate a low acreage of just 3,600 acres
1900-1901  National media focuses on Pima water deprivation
1902  National Reclamation Act becomes law
1908  _Winters v. United States_ establishes reserved rights
1908-1913  Construction of the Santan Floodwater Canal
1911  Antonito Azul pens “An Appeal for Justice” to the people of the U.S.
1914  Pima adjudication survey illustrates the extent of Pima agriculture
1916  Lockwood Decree recognizes Pima immemorial rights
1916  Florence-Casa Grande Project enacted
1922  Ashurst-Hayden Diversion Dam completed
1925  Sacaton Dam and Olberg Bridge completed
1925  Pima file suit in the federal courts, initiating modern water rights
INTRODUCTION

“A WEST OF JEFFERSONIAN FARMERS?”

In the latter half of the nineteenth century, many Americans assumed the resources of the American West were endless and the settlement and development of the land required only the requisite harnessing of nature and determination of the American spirit. While some such as John Wesley Powell recognized the limitations of the land, emigrants trekked west seeking to fulfill a national destiny of subduing, subjugating and settling the land. These goals were accomplished through the vehicle of federal law, which for much of the nineteenth century was premised on economic liberalism, or the theory that minimal government intervention best served “to help the ‘release of energy’ within society.”¹ In reality, the settlement of the West and concomitant American Indian displacement depended on government intervention. Federal land and resource and federal Indian laws and policies were designed to populate the land and facilitate development of the West’s resources by Anglo-Americans. Federal actions shaping social thought and action in dispossessing the tribal nations of their land and resources and facilitating the settlement of the West and utilization of its resources must be considered.

In the years following American independence from England, the United States asserted a legal theory based on conquest to assume control over the lands within its geographical borders.² As the nation advanced westward, it maintained this policy of asserting sovereignty over the land, institutionalizing this legal theory in the Johnson v.

M’Intosh (1823) Supreme Court decision. While tribal nations were acknowledged as possessing usufruct rights, the Supreme Court asserted U.S. rights to pre-emption and, while some states enacted their own pre-emption statutes, federal pre-emption acts in 1830, 1834, 1838 and 1841 granted settlers a legal right to the land upon which they had settled. These settlers possessed “a powerful natural rights view of law rooted in popular sovereignty,” believing natural law obligated them to make use of the land.3

The most far reaching of federal land laws was the 1862 Homestead Act, which, with its companion legislation found in the Timber Culture Act (1873) and Desert Land Act (1877), profoundly impacted the nation. The Homestead Act was envisioned by social reformers as producing a “Jeffersonian utopia of small farming.”4 The intent of the act was simple: carve up the West into 160 acre parcels of land, sell them for a nominal fee and enable settlers to develop the nation’s resources. In short, the Homestead Act was designed to populate the West by throwing it open for settlement, in the process shaping and molding the social fabric of a distinctive Western social and political mindset. In the desert southwest, the Desert Land Act provided a workable plan whereby settlers could acquire up to 640 acres (320 after 1892) from the public domain, but in order to perfect a land title they were required to make a bona fide application of water to the land.

While designed to shape American social thought and action and serve, as Frederick Jackson Turner argued more than a century ago, as a safety valve for an overpopulated east, federal land policies were fraught with abuse, with fraudulent and dummy entries leaving large blocs of public domain in the hands of land speculators.

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Rather than facilitating individual landownership, federal land laws often “promoted monopoly and corruption,” with an estimated 95% of the Desert Land Act final proofs fraudulent. In the first four decades of the Homestead Act, as few as 2,000,000 people successfully homesteaded the West, suggesting limitations in either the social applications of the law or in the land itself. While Congress intended such land laws to encourage individual initiative and benefit the common man, the reality is the law was based on an eastern theory of land use that did not fit the western landscape.

As settlers soon discovered, the real wealth of the West was water, not land. While laws such as the Homestead and Desert Land acts were part of a grand social experiment of transforming the American West into a series of Jeffersonian yeoman farms, the lack of precipitation necessitated an alternative means of applying water to the land. In 1878, John Wesley Powell hinted that the development of the West could proceed only with a communal development effort. In an acknowledgement of the need for irrigation in the West (and a reflection of the West’s increasing political power), both houses of Congress, in 1889, established a Committee on Irrigation and Arid Lands. Two years later, the National Irrigation Congress was organized. When the National Irrigation Association was formed in Chicago for the purpose of advocating federal subsidies for western reclamation projects, it used the Pima as its national poster child.

Across the West, particularly in California’s central valleys, the fertile valleys of the Mountain West and scattered areas in the Southwest, land speculators and settlers

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6 Stegner, p. 220.
alike clamored for federal involvement. Not yet willing to commit to a federally subsidized reclamation policy, in 1894 Congress authorized the sale of up to one million acres of federal land in each state with the proceeds to be used for reclamation purposes. While beneficial to states such as Idaho, whose population doubled in the 1890s largely because of the act, the law had limited impacts and was conspicuous in that it did not apply to territories such as Arizona and New Mexico.9

Westerners, including Nevada’s Francis Newlands, continued to advocate federal support for reclamation projects, even as the federal government remained divided as to the appropriate role of government. The U.S. Geological Survey, then surveying potential western water development, advocated “single use resources [with] many potential uses,” including reclamation. The older, more established Army Corps of Engineers, on the other hand, “placed upon private landowners” responsibility for reclamation, holding a more conservative opinion of water use and development.10

By the last decade of the nineteenth century the federal government increasingly hinted at federal control of water independent of state laws. The Corps of Engineers, for instance, asserted control over the construction of dams on all navigable rivers. In 1898 Congress asserted federal authority over all water passing through national forest reserves if it could be used for “domestic, mining, milling or irrigation” purposes. The following year the United States Supreme Court opined in US vs. Rio Grande Dam and Irrigation

Company that if any part of a river—including its tributaries—were used for transportation, it would fall under federal auspices.¹¹

As importantly, in the Desert Land Act Congress subjected to prior appropriation all public land titles to “surplus waters over and above such actual use,” together with all water from lakes, rivers and other bodies of water if used for irrigation purposes. States might distribute water, but all federal rights were retained.¹² By the turn of the twentieth century, Congress was primed for a national reclamation policy that would further land development. With the ascendancy of Theodore Roosevelt to the Presidency, a progressive leader occupied the White House. Despite tepid eastern support, backing for reclamation seemed assured. On June 30, 1902, Congress enacted the National Reclamation Act.

The passage of the Reclamation Act was one of the most decisive laws in the history of the West, initiating an era of federally subsidized reclamation projects. While intending to complement land laws and foster yeoman settlement of the West, powerful and politically well-heeled speculators, government bureaucrats and Congressional allies asserted control over the region’s water resources and manipulated the act to their benefit.¹³ In the early years of the twentieth century, western water advocates strengthened their position by forming political alliances to further determine and manipulate water policy in the West. This alliance consisted of key congressional committees and legislators, executive agencies (i.e., the Bureau of Reclamation and the

Army Corps of Engineers) and special interest groups (water users in the West). This “iron triangle” influenced public policy to its own advantage and, rather than benefiting yeoman farmers, the Reclamation Act became part of an overall “incongruous land system” in the West by encouraging speculation. While profoundly affecting the social culture of the West and its development, the Reclamation Act did not fulfill its rhetorical purpose of fostering the family farm in the West. For American Indian farmers, the federal goal of yeoman farmers was rhetorical. Even tribal nations with a history of farming, such as the Pima, this goal was more rhetorical than reality.

Unlike federal land and resource laws, the administration and regulation of Indian policy has always been a federal responsibility since the United States Constitution granted Congress sole authority over Indian affairs. Article 1, Section 8 (Commerce Clause) of the United States Constitution, specifically conferred on Congress the power to regulate commerce “with the Indian tribes.” Under the Articles of Confederation (1781-1789), the central government asserted limited control over Indian affairs, although it did define the limits of Indian Country and establish a national pledge of maintaining “the utmost good faith” in dealing with Indian tribes. These regulations were deemed essential for securing the peace and friendship of the tribes, with federal policies generally centered on clearing the land of Indian title.

Following the implementation of the U.S. Constitution in 1789, President George Washington encouraged Congress to enact legislation authorizing the United States to

lawfully interact with tribal nations. Congress followed Washington’s lead and enacted the first in a series of trade and intercourse acts in 1790, by which the United States asserted the authority to regulate Indian trade. In 1824 John C. Calhoun unofficially established a bureau of Indians affairs within the War Department.\textsuperscript{17} With the territorial expansion of the United States, the trade and intercourse act was amended to reflect the geographical growth of the nation. In 1851 and, again, in 1856 an amended act extended federal authority over the Pima villages.\textsuperscript{18}

As the commercial interests of the United States expanded west via the Santa Fe, Southern and Oregon trails, trade increased, with tens of thousands of emigrants crossing the territory of the western tribes. Protection of U.S. citizens traveling on or engaging in commerce along the trails became paramount, leading to a series of treaties with the western tribes beginning in 1846. With thousands of emigrants arriving in the California gold fields in 1849, local tribes found themselves subjected to policies of extermination. Further hostilities erupted on the plains and interior deserts, with local calls for extermination forcing Congress to establish the reservation system in 1851. The new federal policy was designed to reduce Indian land holdings by transforming the Indians into passive yeoman agriculturalists.\textsuperscript{19}

After the Civil War, Congress initiated an intensive effort at assimilating American Indians. As part of this plan, President Ulysses S. Grant appointed a group of eastern philanthropists to the newly created Board of Indian Commissioners and charged

\textsuperscript{18} Francis Paul Prucha, The Great Father: The United States Government and the American Indians (Lincoln: University of Nebraska Press, 1984), pp. 125-126
them with guiding and advising the President on federal Indian relations. The policy advocated by the Board was to bring about the “humanization, civilization and Christianization of the Indians.” To accomplish this required a bold social plan designed to change the Indians’ property, legal, social and political rights.

This era of allotment and assimilation represented an extraordinary attack on tribal nations and Indian people, with the federal courts supporting such policies. In *Lonewolf v. Hitchcock* (1903), the court upheld the authority of the federal government to act without tribal consent. Despite this ruling, the U.S. Supreme Court recognized tribal resource rights in *United States v. Winans* (1904) and *Winters v. United States* (1908), the latter of which upheld tribal rights to water resources.

Between the 1860s and the 1920s, federal land and resource policies in the West tended towards economic liberalism. Federal laws established an incongruous set of land and resource policies that might be characterized as more of a patchwork of laws that frequently conflicted and undermined each other. These policies, while not surprising given the social and political mindset of the nation at the time, were a complicated mesh that grew more incongruous with the passage of a Western water policy. These policies had a profound and lasting impact on American Indians, as great demands were placed on tribal nations’ lands and resources. Under intense pressure by land-hungry settlers and government agents to part with their land and resources, tribal nations faced a juggernaut of continental imperialism. Among the impacts on tribal nations were land displacement, water deprivation, resource dispossession, cultural loss and economic privation. This study tells how one tribal nation, steeped in an agricultural tradition and culture prior to
European contact, was systematically disenfranchised by a myriad of political interests, federal and territorial policies, and off-reservation lobbying efforts that resulted in the near complete dispossession by non-Indians of Pima water and water rights.

When combined with federal Indian policies designed to displace American Indians from their remaining lands and assimilate them into American society, federal land and resource policies had an especially detrimental impact. Reservations were allotted, with many thrown open to non-Indian settlement, resulting in the loss of more than 86,000,000 tribal acres. As the West was settled and its resources exploited, economic liberalism despoiled the Indian land base and pushed American Indians to the periphery of the national economy. Federal policymakers, having “little real interest in the welfare of Native Americans,” manipulated a dynamic federal resource policy for the purpose of controlling and directing the land and its resources for their own or their constituents’ benefit. Rather than promoting agriculture in the West, federal Indian policies—combined with federal land policies—actually diminished Indian agriculture. Economic and social policies designed to foster the yeoman farm instead fractionated the land and isolated American Indians on scattered lands across the West, making economic enhancement of tribal lands difficult to impossible. These policies are best summed up as raising a metaphorical sword above the heads of non-Indian water users.

This metaphor comes from Greek mythology, which relates the story of Damocles, an attendant in the royal court of Dionysius, who lived in Syracuse on the

island of Sicily. Damocles dreamed of the riches and pleasures of Dionysius. One day, the Greek ruler thought to teach Damocles a lesson by hosting a banquet and inviting the attendant to sit in the place of honor. Just as he began to enjoy himself at the banquet table, Damocles was horrified to discover a sword hanging over his head, suspended by a single strand of horsehair. What if the hair should break and the sword fall? The smile disappeared from Damocles’ face and he grew pale. His hands trembled and he no longer took delight at the seat of honor. He ran from the palace. “What is the matter?” Dionysius demanded. “That sword! That sword!” cried Damocles. “Yes,” replied Dionysius. “I know there is a sword above your head, and that it may fall at any moment. But I have a sword over my head all the time. I live every moment in dread lest something should befall me.”

The Sword of Damocles has come to represent an ever-present peril should a legal right be exercised by the party that holds a prior right. In the present case, Pima rights to the waters of the Gila River and its tributaries were both legitimate and a priority that superseded the settlers who made use of the water. In so doing, a metaphorical sword was elevated above these users and represented a distal threat should the Pima exercise their prior rights.

The sword, therefore, serves as an apt metaphor for the water rights struggle of the Pima. While non-Indians made use of the water, the Pima maintained a moral and legal right to it. In time, the United States Government, the State of Arizona and thirty-two water entities, cities and corporations, including the City of Phoenix, the Salt River

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24 While the Maricopa live on the west end of the Gila River Indian Reservation, their agriculture and water rights have a unique history and they are not incorporated into this study even though they are frequently mentioned in the text.
Project and a score of irrigation districts, recognized that should the Pima gain a definitive legal victory in the courts it might result in the sword descending with severe ramifications. With strong federal encouragement, the State of Arizona and its political subdivisions were encouraged to deal with the metaphorical sword. The result was an historic water settlement act for the Gila River Indian Community in 2004.

Surprisingly little has been written by scholars on the Gila River Pima and their water and agricultural history, although Hale erroneously included the Pima as a tribal nation without a single book written on them.25 There have been no scholarly quantitative studies published related to historic Pima agriculture, water use and water rights. Notwithstanding a dearth of quantitative scholarship, there is a good body of useful qualitative literature that deals with aspects of Pima water history. In recent years, a number of good analytical studies of Indian water rights have included chapters, or portions thereof, on the rights of the Gila River Pima. These general qualitative works (Colby, et. al 2005; Colby, et. al. 2006; McCool 1994; McCool 2002; McGuire et. al. 1993) provide broad overarching analyses of Indian water rights but contribute little toward understanding the effects of water deprivation on the Pima or its impact on the Pima economy. Several scholarly works related to the Central Arizona Project (Johnson 1977; August 1996) have a direct bearing on the Gila River Indian Community’s recent water claims and efforts to expand agricultural production.

A number of good scholarly qualitative works cover the broader water rights dispute in the Western U.S. (Dunbar 1983; Foreman 1981; Fradkin 1981; Mann 1963;
Reisner 1986; Stegner 1992; Wilkinson 1992; Worster 1985), but each of these considers this struggle in the West and largely absorbs Indian water rights into the larger national picture. Some recent scholarly work on federal land and resource policies has been beneficial in understanding the broader scope of Pima agriculture, water use and water rights (Klyza 1996; Platt 1996; Pisani 1992; Pisani 1996), although none deals directly with Pima issues with the exception of Pisani (2002), who devotes a portion of one chapter to Pima water struggles at the turn of the twentieth century. Klyza, Platt and Carlson (1981) provide a useful background of economic theories governing federal land and resource policies. Smith (1981) and Smith and Dudley (1989) provide an excellent analysis of the marriage of law and public policy in south central Arizona for the decades sandwiched around the turn of the twentieth century.

Several scholarly works examining Indian agriculture have been helpful in forming a theoretical basis for this research. Carlson considered Indian agriculture in light of the passage of the General Allotment Act, theorizing that severalty policies hastened the demise of Indian agriculture rather than promoted tribal economic advancement. Using a quantitative framework, he argued that the economic theory of land ownership spelled out in the Allotment Act was a disincentive to Indian farmers. As Lewis, Hoxie and Moore (1993) point out, federal Indian and general federal land and resource policies marginalized American Indians from the national economy rather than allowing them to participate in it. McConnell (1991) documented the drastic real estate transactions that occurred as result of such policies.
Few scholars have written on Pima agriculture (Bahr 1983; Castetter and Bell (1942); Ezell and Fontana (1994); Hackenberg 1983; Rea 1997; Russell 1975). Of these, the classic scholarly study is Castetter and Bell, who recorded specific crops and plants cultivated by the Pima, although they did not include a Pima voice. Russell adds to this list but makes no analysis of Pima agriculture or water issues. The most useful scholarship is Ezell and Fontana’s, which posits that, left to their own accord, the Pima would have maintained an agricultural economy on par with that of non-Indians. In fact, Ezell and Fontana assert the Pima actually surpassed their non-Indian neighbors in farming and that the only factors restricting their continued agricultural growth were water and access to modern agricultural technology. As Ezell theorized in 1957, the Pima were in control of their own destiny until water deprivation led to social and economic shifts. Rea provides a definitive and emic perspective of Pima ecology, including cultivated crops.

There have been fewer scholarly works on specific Pima water and water rights matters. Ezell (1961) examined the Hispanic acculturation of the Pima and hypothesized that the Pima successfully adapted to Spanish agriculture (wheat, etc.) because they already practiced irrigated agriculture, had a desire for peaceful relations and were located geographically along the Gila River. Other works (Bolton 1916, 1919, 1930, 1936; Dunne 1955; Galvin 1965; Karns 1954; Matson and Fontana 1977; Treutlein 1949) provide ethnographic descriptions of the Pima, Pima farming practices and water uses. Wilson (1995; 1997) provides further ethnographic material related to Pima agricultural and water practices during the Colonial and early American years.
With limited scholarship on historic Pima water uses, only a few studies were consulted (Dobyns 1989; Ezell and Fontana 1994; Shaw 1974; Webb 1959; Wilson 1997). In addition, I utilized the wealth of archival material found in the National Archives, much of it available on microfilm. This archival material from the National Archives in Washington, D.C., and Laguna Niguel, California, as well as records from the San Carlos Irrigation Project in Coolidge, Arizona, the Charles Cook Theological School library in Tempe, Arizona, Government Document libraries at the University of Arizona, Arizona State University and Northern Arizona University, and the Labriola Collection at Arizona State University were useful for building a strong evidentiary case for both the extent and success of Pima agriculture and the severity of water deprivation among and the economic destruction of the Pima. In addition, I gathered secondary source material from various institutions and libraries as well as from the special collection holdings of the Arizona State Museum library in Tucson and the Special Collections Library at the University of Arizona. Additional local water resource material was found at the Pinal County Historical Society in Florence, Arizona. Material from the Pima’s Indian Claims Commission dockets (Hackenberg 1955; 1974) was also useful.

**Economic Liberalism**

The theoretical framework I adopted for the present study builds on that of Ezell and Fontana (1994), Fontana (1983) and Hackenberg (1983). Ezell and Fontana assert the Pima were extraordinary farmers and traders before non-Indian settlers disrupted their economy. They also posit that the Gila (and Salt) River was the lifeblood of the Pima economic, social, cultural, spiritual and political wellbeing and that the Pima repeatedly
adapted to changing conditions. Fontana described the Gila River as the “anchor” of Pima social and cultural existence. Hackenberg examined Pima and Papago agriculture and argued that, while the latter adapted a “mini-max” economic philosophy towards agriculture, the former—relying on the Gila River—adopted a “maximum” approach, growing large amounts of crops on as large an area as possible. While water has more value to the Pima than simple economics (Russell (1975); Underh ill 1951), my focus is almost exclusively on water as an economic tool.

This framework is also influenced by recent studies on national conceptions and economic theories governing the latter half of the nineteenth century. In the decades before the Civil War, a shift occurred in American social thought regarding the national conception of democracy, a change that would have profound implications for American Indians. This shift was rooted in the romanticism of antebellum America and influenced by the unfolding acceptance of naturalism in the latter nineteenth century. The emerging concept of democracy was reflected “in the goodness of majority rule, a minimal government supposedly beneficial to all alike, and to free enterprise.”26 In other words, governmental liberalism was the underlying philosophy of American social action. This was nowhere more evident than in federal policies related to land and resource development and American Indian access to and protection of their water.

Economic liberalism facilitated the settlement of the West and the development of its resources, but came at the great social and economic expense of displacing American Indians and reducing them poverty. Nineteenth century Americans were encouraged to

avail themselves of the opportunities presented in the West because “they supposedly could.” In the West, class privilege was theoretically removed and replaced by the ideological self-made man. If an individual did not find economic success in the West it was a result of his own deficiencies. Economic liberalism offered the opportunity; individual man was responsible for acting on it. “Freedom of opportunity under [economic] liberalism had as its [main] goal the freedom to become unequal in wealth and position.”

Economic liberalism, of course, was but one response to the new democracy. Born in the age of enlightenment, economic liberalism became the guiding principal for national expansion. Minimal government interference placed the duty of responsibility on the individual. Continental expansion gave birth to the idea of manifest destiny, infusing new meaning into the concept of individualism. Americans needed more than freedom of choice to be free; they also demanded “the opportunity to develop their natural talents to the fullest,” a belief that could be realized in the vast and seemingly unlimited potential of the West. Such social policies gave birth to rugged individualists who adhered to the theory that limited government was the most prudent course of action.

Moreover, the frontier represented the symbolic importance of upward mobility via land acquisition and resource exploitation. In fact, the frontier provided a new sense of respectability to the immigrant based on the prevailing ideas of democracy and the emerging theory of scientific racism, which provided settlers with the justification to appropriate the land and water resources of the Indians. As the second half of the

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nineteenth century unfolded, these ideas found expression in the self-help and self-reliance of the American individualist, about whom in 1893 historian Frederick Jackson Turner wrote perpetrated “all the manifest evils that followed from lack of highly developed civic spirit.”

**Indian Water Rights**

When Lewis Henry Morgan outlined his seven stages on the civilization-savagery continuum in 1877, he aided the imperial plans of the nation by relegating the American Indian to the low end of savagery. At the center of this continuum was the acceptance of the social adaptation of Darwinian evolution. This national transformation of the American Indian was complete when these ideals were institutionalized by the American scientific academy between 1876 and 1915. This characterization was poignantly symbolized at the 1915 Panama Pacific International Exposition in San Francisco, where James Earle Fraser’s “The End of the Trail” served as a not so subtle metaphorical representation of American Indians. The unique American conception of democracy, liberalism and individualism, combined with the embracement of scientific racism justified continental expansion, displacement of Indian nations and the appropriation of their land and resources. If the Indians were unable to adapt to these changing times, popular sentiment asserted, it was their own lack of ability and moral ineptness—not government culpability—that was at fault. The philosophical transformation of the age-old “Indian problem” could now be rationalized and used to justify appropriation of Indian resources.

Concurrently, and despite federal rhetoric to the contrary, Indian water rights were virtually ignored until well into the twentieth century, particularly on non-treaty reservations such as the Pima Reservation. Western water disputes in the nineteenth century pitted tribal nations against non-tribal agricultural and mining interests. The cause of this dichotomy was the separate and competing legal doctrines upon which Indian and non-Indian rights to water were predicated. The historic federal Indian relationship rooted tribal water rights in federal law and the doctrine of reserved rights, which holds that tribal nations and/or the U.S. Government in its fiduciary capacity impliedly and implicitly reserved sufficient water to make reservations a permanent homeland for Indian people. These reserved rights are based not only on the past and present needs of tribes but they also extend into the future, meaning as tribes develop their reservations into economically and socially viable homelands, their future water needs are protected. These rights are limited only by the practicably irrigable acreage of a reservation and/or the completion of a water settlement.

Conversely, non-Indians are governed by a different set of laws based on state statutes. These laws reward senior water users who file lawful claims to the use of water with rights that supersede junior users. In other words, “first in time, means first in line.” The key to prior appropriation is that the water must be beneficially and continuously used or the right after five consecutive years of non-use is forfeited. Consequently, Indian water rights have not only pitted powerful state interests against tribes and the federal government but because of their future-oriented nature, have also been viewed as casting a metaphorical Damoclean sword of uncertainty over state interests.
The Gila River (Pima) Indian Community

This study covers the historic backdrop of the 2004 Gila River Indian Community Water Settlement Act by examining the origins of the Pima water struggle from the mid-nineteenth century through the completion of the Florence-Casa Grande Project (FCGP) in 1924. At the center of this project was a federal adjudication survey to determine the status of Pima agriculture in 1914. My central thesis is that had Pima farmers not been deprived of their rights and access to the waters of the Gila River they would have continued their highly successful adaptations to a commercial economy that ultimately would have placed them on par with and part of the national economy. As their economy expanded, so, too, did their level of social and political organization. Irrigated crops demanded a highly sophisticated and organized socio-political structure. This is reflected in the marvelous adaptations the Pima made in their political economy prior to 1900.

More specifically, Pima farmers would have equaled, and possibly surpassed, their non-Indian neighbors had they not been handicapped by economically liberal federal land and resource policies. Convenient scholarly assumptions that American Indians were inherently unfit for or overwhelmed by unfamiliar Western economies are specious. In the case of the Pima, it was not a matter of the triumph of Western Civilization that displaced their economy as much as it was federal and territorial laws that prevented them from continuing their extraordinary economic success. The result of these liberal policies was the marginalization of the Pima economy and the rapid realization of a vicious cycle of poverty.

As a pre-eminent agricultural people, the Pima did not passively respond to the events of a century ago. Rather, they proved remarkably adaptive to water shortages, demonstrating their resourcefulness in important ways. In response to the water crisis, the Pima reduced the amount of land they cultivated. For much of the period between 1846 and 1880 they increased their acreage and, while facing periodic water shortages, were creative in finding ways to keep land in production. Further, as the water crisis deepened, particularly after the mid 1870s, the Pima abandoned their least productive lands, seeking against great odds to maintain an agricultural economy. In the midst of this deprivation they relocated (or abandoned) a number of their villages and scores of fields in an attempt to maintain an agricultural way of life. To make the most of their diminishing water resources, they grew small grain crops, such as wheat and barley. While these crops were not new to the crop rotation, the Pima increasingly relied upon them as they required considerably less water than other crops.

Realizing these theses aids in understanding Pima agriculture before water deprivation, recognizing the roots of Pima water rights and documenting the nature and extent of water deprivation among the Pima. I have employed the metaphorical Damoclean sword to demonstrate how non-Indian usurpation of Pima water cast doubt on non-Indian use of the water and at the same time despoiled the Pima economy.

The Gila River Indian Community today encompasses 371,792 acres in the middle Gila Valley, a seventy-two mile stretch along the Gila River extending from The Buttes, fifteen miles east of Florence, west to the confluence of the Gila and Salt rivers. In between these two geographical features, the Gila Valley varies from three to thirteen
miles in width, with a low western gradient of 579 feet. This valley was historically composed of a mosaic of agro-environments shaped by variations in precipitation, soil types, geomorphic processes, drainage patterns and slope gradients. It is surrounded by a series of mountain ranges providing rain runoff that the Pima have used to their advantage for centuries. The mountains, including the Sierra Estrella, Salt River, Santan and Sacaton, are composed mostly of Precambrian igneous and metamorphic rocks and are surrounded by Quaternary sediment aprons called alluvial fans. Fans emanating from the mountains in turn coalesce to form bajadas, which intermingle with the floodplain of the Gila River. Coarser sediment loads are discharged higher up the bajadas, with the finer textured materials remaining in suspension and washing down into the basin, leaving fertile soil capable of retaining moisture and nourishing plant maturation.

Physiographic aspects of the natural environment—including temperature and precipitation—have impacted cultural attitudes toward the land. The reservation portion of the valley receives a mean annual rainfall of 8.37 inches, with a slight moisture gradient from east to west. Precipitation is bimodal, being distributed in short but intense summer monsoons and gentle winter rains. The spring months of April, May and June are the driest. The entire middle Gila Valley is arid, with evapotranspiration exceeding annual precipitation, necessitating supplemental water to yield adequate harvests. Human cultural attitudes are centered on irrigated agriculture, a practice extending back at least two thousand years to the ancient Hohokam civilization.

Despite its aridity, groundwater beneath the Gila Valley can be found in most geologic strata. These strata are hydraulically connected to form one of the largest and
deepest aquifers in the State of Arizona. The upper alluvium is the primary water-bearing strata beneath the valley and consists of “unconsolidated fine to coarse sand, gravel and cobbles with local silt interbeds.” The average saturated depth of this aquifer is 400 feet. The geology of the middle aquifer consists of lacustrine silts with intermingled beds of fine sands and evaporate minerals, with the silts acting as an aquitard to confine groundwater to the underlying aquifer. This middle aquifer is an estimated 700 to 1,200 feet in depth. Extensive off-reservation groundwater mining in the middle Gila and Lower Santa Cruz basins has initiated severe environmental deprivation on the reservation over the past century. Groundwater over-drafting, for example, has created cones of depression that have reversed the natural flow of groundwater beneath the reservation. Such dewatering has had an adverse effect on the water table and compounded the effects of surface flow losses from the Gila River.

The dominant geophysical feature and cultural focal point within the valley is the Gila River, which once served as the main water source for south-central Arizona. With its headwaters in the mountains of western New Mexico, the Gila flows west-southwest and empties into the Colorado River near Yuma. The river drains a watershed of 63,000 square miles, with the Salt and Santa Cruz rivers, Queen Creek and McClellan Wash all major on-reservation tributaries of the Gila, providing an abundance of water for the Pima before upstream diversions interrupted this flow (see map 1). The Gila River today no longer flows across the reservation except during or after major storm events.

34 Gila River Indian Community Master Plan Report for Land and Water Use, p. 2-7, 2-14 and 2-15.
The Gila River Indian Reservation is part of a larger geopolitical area classified as Indian Country. The concept of Indian Country represents more than just a legal definition of land held in trust by the U.S. Government. It includes matters of residual sovereignty and jurisdiction, which enable tribal nations to exercise economic and property rights without state interference. The United States Code defines Indian Country as “all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent and underlying rights-of-way running through the reservation.” Individual “Indian allotments, the Indian titles to
which have not been extinguished,” also remain Indian Country.35 The Pima Reservation, therefore, is land to which Indian title has not been extinguished and over which tribal and federal law applies to the exclusion of state statutes (except in cases where federal law has conferred such authority). The reservation has been enlarged seven times by executive order (see map 2).36

Map 2: Geographic Expansion of the Gila River Indian Reservation

When President George W. Bush signed into law the Arizona Water Settlements Act on December 10, 2004, the Gila River Indian Community celebrated a milestone in

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35 18 United States Code §1151.
36 Executive Order reservations were recognized by Presidential action, rather than treaty. The Pima (Gila River) Indian Reservation was originally recognized by act of Congress but was expanded by Presidential order. For a discussion of treaty and executive order reservations see Rennard Strickland, ed. Felix Cohen’s Handbook of Federal Indian Law, 1982 Edition (Charlottesville, Virginia: Michie Bobbs-Merrill Law Publishers, 1982), pp. 27-46.
its long-standing water rights dispute. The act established an annual tribal water budget of 653,500 acre-feet.37 This set into motion the means by which the Gila River Indian Community seeks to restore its economic self-sufficiency and agricultural economy. Plans to develop up to 146,330 acres of agricultural land in a region of the state where similar land adjacent to the reservation is rapidly being displaced by residential subdivisions have been in place since 1985. Maricopa County on the northern boundary of the reservation has experienced a 56.2% decline in agricultural land (1,429,539 acres to 627,254 acres) since 1982, as developers gobble up some of the most productive farmland in the Southwest and convert it to urban uses. Although initiated later, a 51.7% decline (2,403,901 acres to 1,161,563 acres) has occurred in Pinal County on the southern boundary of the reservation, as once small farming communities have exploded in growth.38 Upwards of one million people living adjacent to the southern boundary and as many as ten million to the north are projected by 2025. The upshot of this development and the water settlement act is that the Gila River Indian Community can position itself to again serve as the granary of Arizona.

For the 150 years between 1694 and 1848, Spaniards, Mexicans and Americans penned glowing reports of the Pima, praising their industry, fidelity and moral probity. These chroniclers described an emerging and dynamic cultural adaptation occurring along the Gila River. In the following chapter, I consider these cultural descriptions among the Pima during the formative years of Spanish and Mexican administration. By

analyzing Spanish (ecclesiastical and military), Mexican (military) and American (military and emigrant) journals I am able to deduce a cultural mindset among the Pima as an agricultural people. This aids in understanding their adaptation to new crops and new growing patterns made available through a combination of an adequate supply of water and new technology, such as Spanish wheat. These formative years demonstrate the proclivity of the Pima to maximize their agricultural production and make the necessary cultural adaptations in response to their environment.
CHAPTER 1

"NONE EXCEL THEM IN VIRTUE AND HONESTY:"
THE PRELUDE: 1694 to 1848

Between 1694 and 1848 a medley of ecclesiastical and military chroniclers described an emerging and dynamic cultural adaptation occurring among the Pima, or the Akimel O’otham—the “River People.” While Pima culture was by no means static prior to 1694 it was certainly less so after as the Pima adapted to new crops and growing patterns. Villages clustered together more frequently than before and other Piman groups, including some of those in the San Pedro Valley (Sobaipuris) and in the Santa Cruz Valley (Koahadk) moved to join the Gila Pima (see map 3). Core cultural values such as industriousness, virtue and honesty continued to guide the Pima.39

The Gila River, variously labeled the Rio Grande, Rio de hila, Rio Grande de hila, Rio Azul, Rio de los Santos Apostoles, Rio del Nombre de Jesus, the River of Hila, the Jila, hee-la, Helay, Xila and Jee-la, was simply called Akimel (“River”) or Keli Akimel (“Old Man River”) by the Pima.40 The river was the socio-economic lifeline of the Pima, with its waters embodying the very essence of their existence. With its waters, the Pima cultivated a variety of crops to sustain a salubrious diet and economy in the midst of an

39 The term Pima villages refers to the villages along the middle Gila River inhabited by the Pima—or Gileño, as the Spaniards referred to them. References to the Koahadk, who were part of the Pima confederacy, are frequent as they resided just south of the Pima villages. The principle Koahadk village was near Picacho Peak along the Santa Cruz River on the modern Tohono O’odham Reservation. The term Pima throughout refers to the Gila River Pima and not the Piman peoples to the south.

otherwise inhospitable desert. While also dependent upon natural foods and wild game from the desert, the Pima engaged in inter-tribal trade for a portion of their food.

Written accounts of the agricultural skill of the Pima abound, beginning in 1694 when Jesuit priest Francisco Eusebio Kino made the first recorded observations of the Indians. These accounts, like those of eighteenth century Franciscan priest Pedro Font, concluded that the industriousness of the Pima was made possible by the river and was responsible for their hospitality, enabling them to provide for their own needs and trade with neighbors. Cultivating food and fiber crops, the Pima developed and sustained a stable economy that endeared them to Spaniards, Mexicans and Americans alike.41

The Gila River defined the Pima and shaped the ways in which they perceived those around them. It allowed them to annually grow two crops—summer cotton, corn, melons, beans and squashes as well as winter wheat. The latter, introduced by the Spanish, became a mainstay supplement to their indigenous seasonal crop patterns.42 Their relatives to the south, called Papago by the Spaniards, are the Tohono O’odham or “Desert People.” Absent a perennial source of irrigation water, the Papago response to their environment differed from the Pima in that they subsisted by annually migrating from summer, floodwater-farming (or ak chin) villages in the desert to winter, hunting settlements in the mountains.43 After the eighteenth century, the Pima, while

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41 Anza’s California Expeditions: Font’s Complete Diary, 4:44.
43 Edward H. Spicer, Cycles of Conquest: The Impact of Spain, Mexico, and the United States on the Indians of the Southwest, 1533-1960 (Tucson: University of Arizona Press, 1962), p. 119, notes that while most the people of the Pimeria Alta were called Pima, Spain called those in the east along the San Pedro River the Sobaiapuris, those in the western deserts the Sobas, those along the Gila River the Gilehos, and those in the southeast simply upper Pima. The Papago were in the west central desert. The Pima on the Gila River Indian Reservation today are both Sobaiapuris and Gileho, with some of the Santa Cruz River Valley Pima (Kuahadk) mixed in.
acknowledging their kinship with the Papago, recognized the river gave them a level of affluence not enjoyed by their relatives or any other tribe in the region. They understood that Akimel O’otham not only meant “River People” but also implied they were “the resource-rich elite.” Lacking the resources of their kin, the Papago annually trekked to the Pima villages to work in the harvest and trade Spanish goods and items lacking among the Pima—such as salt—for agricultural goods. While many Pima and Papago families were related through the economic reciprocity of the tribes, the Pima exerted a level of economic authority over their southern relatives through trade.

Beginning in the late seventeenth century and continuing into the nineteenth, the Pima exhibited a pattern of continual ecologic and economic adaptation to their environment. Combined with an affinity for improving their standard of living, the Pima demonstrated propitious agricultural production. An agriculture-based economy ensured a dependable food supply, manifesting itself in a confident, affable outlook. Such was the enterprising spirit of the Pima that they maintained a thriving trade with Indian, Spanish, Mexican and, later, American communities. Astute traders and possessing an extensive and fertile tract of land along the middle Gila River, the Pima adapted to new means of economic activity in the eighteenth and nineteenth centuries and in the process became a materially “wealthy” people.

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44 Amadeo M. Rea, *At the Desert’s Green Edge: An Ethnobotany of the Gila River Pima* (Tucson: University of Arizona Press, 1997), p. 9. Rea notes the Pima applied the term “Tohono” to a collection of “dialectical groups living without permanent water resources.” This included the Papago, although most pitted by the Pima were the Sand Papago (*Hia Ced*), whose desert and coastal foraging was both seasonal and difficult.


When Kino first visited the Pima villages, he was quick to point out the extent and quality of cultivated and natural Pima food stores. The Pima grew a variety of food crops and enjoyed a supply of fish from the river. Kino observed the Maricopa (Kaveltcdom), then living downstream of the Pima below the Gila bend, fishing with “nets and other tackle” and providing him with “so much and so very good fish” that he issued it as rations to the troops accompanying him “just as beef is given where it is plentiful.” The Pima likewise engaged in fishing as a source of food.47

The Pima’s propitious environment is made evident by the historical record. The Spanish and Mexicans reported no instances of famine in the middle Gila River Valley. While there was episodic drought and the river periodically went subterranean along the middle Pima villages during the hot summer months, crops—cultivated or natural—never completely failed along the river. Other Piman groups to the south—including one living north of Tucson on the Santa Cruz River—occasionally experienced famine and, at such times, depended on their Gila River relatives for food. Juan Bautista de Anza Jr. noted in 1774 that many of the Piman people near Tucson moved north to join the Gila River Pima “on account of the great drought and the still greater famine which is experienced in it.”48

Agriculture dominated the Pima economy and corn, tepary beans, cotton and a variety of squashes served as staple food and fiber crops. Grown in sixty days, small-eared Pima corn required minimal amounts of water beyond its pre-planting irrigation

47 Kino’s Historical Memoir, 1:195-197; Anza’s California Expeditions: Opening a Land Route to California, 2:389; John Russell Bartlett, Personal Narrative of Explorations and Incidents in Texas, New Mexico, California, Sonora, and Chihuahua (New York: Appleton, 1854) 2:241-242, wrote the Salt River was the preferred fishing location due to its perennial nature, whereas the Gila was known to sink “underground in hot weather” west of La Encarnacion del Sutaquison. The Gila was long characterized as a shallow, narrow stream. Beyond its confluence with the Salt it increased in volume.

48 Anza’s California Expeditions: Opening a Land Route to California, 2:124.
and could be planted, cultivated and harvested three times a year. Its yield—while not extravagant—was ten to twelve bushels per acre. By 1680, Pima corn was traded as far as the New Mexican settlements near Santa Fe.

While engaged in trade, the Pima did not grow food as a commercial crop, instead growing sufficient crops for subsistence, limited trading purposes and seed for the following season’s crop. Their incorporation of Spanish wheat altered this pattern and served as the basis for Pima prosperity in the latter eighteenth and early nineteenth centuries. Planted in the fall and harvested in late spring when winter stores were at their lowest, wheat was a complementary crop planted off-season from the traditional crops of corn, beans and squash. Since it could be stored long periods, wheat provided the people with a balanced food supply and insured a stable economy. While it did not immediately modify their economy, within decades it would join corn as a principle Pima crop. By 1744, Jesuit priest Jacobo Sedelmayr specifically observed the cultivation of wheat at Sutaquison, the largest Pima village.

Wheat modified the Pima economy in a variety of ways, including expansion of the Pima irrigation system. Kino, observing abandoned Hohokam canals at Casa Grande and chronicling Pima agricultural production, never specifically mentioned irrigation farming on the Gila River in any of his journals. While not mentioned, this does not mean the Pima were ignorant of irrigation canals or did not use them. As descendants of the Hohokam, it is highly likely they were engaged in some level of irrigated agriculture.

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49 Castetter and Bell, pp. 80-82. Kino’s Historical Memoirs, 1:195.
50 Anza’s California Expeditions: An Outpost of Empire, 1:263; Rim of Christendom, p. 248; Jacobo Sedelmayr, 1744-1751: Missionary, Frontiersman, Explorer in Arizona and Sonora; Four Original Manuscripts, edited and translated by Peter Masten Dunne (Tucson: Arizona Pioneer’s Historical Society, 1955), pp. 23, 28. La Encarnacion del Sutaquison (Sudacson) is between the modern communities of Sweetwater and Casa Blanca.
Captain Juan Mateo Manje, accompanying Kino to the villages in 1699, noted irrigation canals in use among the Sobaipuris along the San Pedro River just weeks before arriving among the Gila River Pima. Manje opined if Spain were to establish missions near the Gila River, irrigation farming was possible, suggesting irrigation canals could be (or perhaps already were) extended away from the river. While the Pima utilized irrigation prior to the introduction of wheat, there may have been little need or economic incentive for them to irrigate away from the river since the fields planted in the floodplains and on the islands within the Gila sufficiently provided for their needs.51

By the 1740s, the Pima were growing a surplus of cultivated foods. So extensive were these crops that their relatives the Papago began assisting them with the harvest in return for a share of the crop. While there was a limited supply of food crops to trade, grain was bartered in Tucson in time of famine on the upper reaches of the Santa Cruz River. Pima wheat was cultivated and irrigated “on either bank of the river and on the islands.” The Pima grew large quantities of crops by means of “trenches which, the country being level, are easily carried from the Gila.” By the mid seventeenth century Pima lands were “fruitful and suitable for wheat, Indian corn, etc.” Such was their cotton production that their Sonoran neighbors coveted their excess.52

Adaptation to wheat shifted the economic focus of the Pima. Once bartering simple manufactured goods, such as cotton blankets, woven baskets and pottery, by the latter eighteenth century the Pima were exporting limited agricultural commodities and

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51 Manje, p. 121.
moving towards a quasi-commercial economy. While they made their own woven and cotton blankets, trade with Spanish settlements or Indian middlemen allowed access to both bayeta (flannel) and sayal (woolen) cloth. The integration of wheat into their economy enabled them to improve their standard of living and acquire new technology, such as metal tools. Having always used the river to their advantage, the Pima now combined their agricultural expertise and the Gila River with a new crop—wheat—to expand trade networks. Fray Juan Diaz noted the Pima were well dressed and gave as reason their superior agricultural production and trade networks with Spanish and Indian communities to the south.53

By the waning years of the eighteenth century, the Pima were well on the road to economic prosperity. Passing through Uturituc in the spring of 1774, Anza described “fields of wheat … so large that, standing in the middle of them, one cannot see the ends, because of their length. They are very wide, too, embracing the whole width of the valley on both sides [of the river].” Pima cornfields were “of similar proportions.” A day earlier, Anza traveled through the village of Sutaquison and described fields planted with “sixty to eighty fanegas of wheat, marvelously fine and about ready to harvest.” This particular field was “the smallest one they have.” Even Diaz admired how each village planted large fields of wheat, corn and other crops, despite the drought and famine plaguing other Piman tribes further south.54

54 Anza’s California Expeditions: Opening a Land Route to California, 2:124, 126, 304. One fanega, a unit of dry measure used in Latin American countries, equals 1.58 U.S. bushels, meaning Anza estimated between 95-126 bushels of wheat had been broadcast over the field during its initial planting. The field was probably between sixty and seventy-five acres in size.
The Pima villages were not immune to the periodic drought that could grip the Sonoran Desert. Franciscan priest Pedro Font, traveling with Anza in the fall of 1775, observed the lack of rain affected the Pima as well. While they were not without food, Font noted that “only in the time of floods is [the river] useful for the grain fields and corn fields of the Indians.” Pima crops required “much water” to ensure a bountiful harvest. Garcés, traveling with Anza and Font, was more patronizing, noting that in spite of drought conditions, the Pima still “raise large crops of wheat, some of corn, cotton, calabashes, etc.” To raise such crops the Pima “constructed good irrigating canals, surrounding the fields in one circuit common (to all) and divided (are) those of different owners by particular circuits.”

The Pima also modified their mode of agriculture in the latter eighteenth century. Irrigation canals were extended to lands on the south bank of the river and log and brush dams—probably used for centuries to direct water—were increased in size and used to elevate the water and insure a sufficient head to reach fields farther from the river. The people of Uturituc, for instance, fastened together “many logs in the middle of the river” and then used brush to raise the water into long canals that watered individual fields. Intensive agriculture meant fields were flooded before planting, with the entire flow of the river “drained off.” Tail waters were returned to the river to be used by the next

55 Anza’s California Expeditions: Font’s Complete Diary, 4:34, and 45. Elliot Coues, ed. On the Trail of a Spanish Pioneer; the diary and itinerary of Francisco Garcés in his travels through Sonora, Arizona, and California, 1773-1776 (New York: F.P. Harper, 1900) pp. 107-108. Anza’s California Expeditions: The San Francisco Colony, 3:19. This observation was made near Sutaiquin. The river would have been low due to its seasonal fluctuations. Winter rains and spring snow runoff in the upper Gila watershed would increase the flow across the middle Gila. Late spring and early summer represent the driest months.
village downstream. Increased and widespread flood irrigation helped flush the salts out of the soil and keep the land productive.\textsuperscript{56}

The Pima continued to adapt to their environment. In areas south of the Gila, and where the Gila flowed beneath the surface, they dug wells. Garcés noted a large well south of the Pima village of Pitac and thirty miles further south found several more at the Papago village of Pozos Salados. Pima farmers also constructed fences around their irrigated lands. Font described farms that were “fenced in with poles and laid off in divisions.” Garcés reported fence building as a communal event, noting individual Pima farmers had “their lands within divided” into rectangles about two hundred by three hundred feet for “convenience of irrigating.”\textsuperscript{57}

In addition to enjoying the fruit of their agricultural endeavors, the Pima enjoyed the benefits of a thick riparian canopy along the river. Kino described “pleasant” and “very large cottonwood groves” lining both banks of the Gila River west of Casa Grande (Ruins). Sedelmayr wrote that “willow and cottonwood” lined the river. Even Font described the Gila as one “continuous cottonwood grove.” A lush riparian canopy that included a dense forest of mesquite in the flood plain attracted a variety of fish, fowl and fauna, all of which added to the quality of life among the Pima.\textsuperscript{58}


Year-around crops, intensive cultivation and trade supported Pima affluence in well-built villages. Sutaquison, the principle Pima village and seat of government, occupied “a pleasant, abundantly tree-covered country fourteen miles long and irrigated by aqueducts.” The Pima employed all the agricultural “advantages offered them by the Gila River” and hosted annual trade fairs with residents of Tucson, Tubac and other villages along the Santa Cruz River between the 1820s and 1840s.59

The agricultural skill and a natural enmity with the Apache made the Pima geopolitically important to Spain. If Spain were to maintain its California settlements—then connected to New Spain via maritime communication lines—they had to be tethered to the towns of Sonora and New Mexico. A desired land route to California put the Pima villages in the middle of Spain’s route to the west. If Russian, English and French influences were to be contained, the Gila River had to be under the tacit—if not outright—control of Spain. This could only be accomplished through Pima fidelity to the Crown.

The Pima were not passive as Spain made its inroads into the Pimeria Alta. They clearly perceived Spain as an ally against their traditional enemy the Apache. From Spain the Pima could acquire new technology such as horses, metal tools, guns and new crops that might give them an edge in expanding their own sphere of influence. An alliance would ensure preferential treatment and a continual supply of new ideas and technologies. In this respect, Spain served as both a social resource and a military ally. A reciprocal relationship would aid Spain in establishing political hegemony over other

colonial nations and allow the Pima to exercise a level of economic supremacy over related tribes in the region.

In the process of extending and protecting its northern frontier, Spain encouraged the Pima to concentrate their villages along the middle Gila River. Pima rancherias were thinly dispersed along the river and although permanent, they moved periodically. A moist eighteenth century encouraged the Pima to increase their production of crops and extend their politically autonomous villages along the middle Gila.60

While agricultural lands were more compact along the river and adjacent to the villages, the Pima utilized the lowlands of the Gila, Salt and Santa Cruz rivers. West of El Picacho, Pima (ethnically Koahadk) villages engaged in ak chin, or floodwater farming. The Sobaipuris farmed the San Pedro River Valley and bartered corn for “hatchets, cloth, sackcloth, blankets, chomite, knives, etc.,” from colonists in New Mexico. Cultural adaptations encouraged by the introduction of wheat and the horse, and continued Apache raids fostered the concentration of villages throughout the eighteenth century.61

While the Pima population slowly increased over the latter part of the eighteenth century, it benefited from the depopulation of other Piman tribes to the south and their settlement along the Gila.62 The Sobaipuris villages, for instances, had “broken up” due to Apache harassment and when Jesuit missions in Arizona faced a crisis of survival due to Indian depredations, the Catholic Church sought to strengthen its missions in the Santa

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60 Manje, p. 196.
62 Kino’s Historical Memoir, 1:186, 206; Ezell, p. 17. The introduction of European diseases such as smallpox and measles, which spread in advance of contact, diminished the Pima population, although there are scant references to illness among the Gila River Pima. Manje, p. 273, notes that the Pimeria Alta in general had diminished in Indian population due to disease but does not give any evidence of epidemics among the Gila Pima. There were an estimated twenty-two hundred to three thousand Pima at the turn of the seventeenth century.
Cruz Valley by using military force to consolidate the remaining Sobaipuris villages with those of the San Xavier Papago and other Piman villages on the Santa Cruz River north of Tucson. Within two years, the San Pedro Valley was abandoned. The villages along the Santa Cruz River north of Tucson eventually faced a similar fate, adding to the Pima population.63

Pima agriculture handsomely rewarded the villages with an ample supply of food, but also attracted Apache raids, precipitating the concentration of most Pima villages in the area of Sutaquison.64 Here a fertile floodplain four miles wide and continually restored by the flooding of the Gila River enabled the Pima to farm the river terraces. While centered in Sutaquison, the villages—made up of related families—were concentrated in three large rancherias some thirty miles in length with political authority in the hands of village leaders. Increasingly, tribal leaders were provided Spanish canes of office to exercise increased authority.65

Apache raids increased in frequency as horses allowed them to quickly raid the agrarian and sedentary Pima. In April of 1780, they dealt the Pima one of their most disastrous assaults. Disguised as Spanish soldiers, the Apache descended on a party of Pima, killing or capturing one hundred twenty. To better protect themselves from such attacks, the Pima moved their villages to open country away from the river. As raids intensified, other villages withdrew to the south bank of the Gila to higher and more strategic environs. Smaller villages and rancherias pulled closer together to create a

“metropolis form of settlement.” Villages were now surrounded by irrigation canals and agricultural fields. Apache raids encouraged concentration of the villages, although ecologic and economic adaptations to wheat and increased trade supported it. As Pima agriculture intensified, production increased. Rising production enlarged trade networks and modified settlement patterns. By the nineteenth century the Gila River was used by the Pima to sustain a thriving agriculture-intensive economy.

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**Map 3: Eighteenth Century Location of Tribal Nations**

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(Source: Author file)

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66 Anza’s California Expeditions: Font’s Complete Diary, 4:46; Bartlett, 2:249.
While the stated goal of its intercourse with the Pima was “the progress of our holy Faith and the spiritual benefits” of Christianity, the driving force of Spain’s activity was economics. Since Marcos de Niza’s tales of the cities of gold, Spain hungered for the mineral wealth of the frontier. Nomadic and militarily powerful, the Apaches controlled the exploration and development of these mountain resources. To accomplish its objective of mineral exploitation, Spain needed an ally to extend its frontier; the Pima, desirous of maintaining its preferential treatment from Spain, also needed an ally. Such an alliance for Spain might extend the rim of Christendom and open up more of the wealth of the northern and northeastern mountains. The concurrence of the Pima “as a means … of securing the conversion of the other tribes” was viewed as essential since the Pima administered the gateway to the north.67

Conversion of the Pima to Christianity would extend the Spanish frontier to the Gila River, giving Spain “an advantage over (other) European nations” in maintaining its claims to the interior west. Kino saw Spanish influence over the Pima and Hopi as a means of opening “communications with New France” as it made its own “apostolic journeys from east to west.” Sedelmayr, aware of growing French influence in the Mississippi River Valley, eyed the Gila and Colorado River frontiers as one means of stemming French hegemony in the Mountain west.68

67 Spanish Exploration in the Southwest, p. 451; Sedelmayr, p. 27. North of the Gila River were the Hualapai, Havasupai, Southern Paiutes, Yavapai and Hopi. To the south the Tohono O’odham controlled their lands and to the east the Apache controlled most of southeastern Arizona as well as parts of New Mexico and Sonora. Manje, p. 2; Spanish Exploration in the Southwest, p. 453; Sedelmayr, pp. 32, 34-35. The Jesuits moved north from Mexico into the Santa Cruz and San Pedro River valleys and it was they who desired to continue north to the Hopi villages. The Franciscan priests in New Mexico, while driven from the field in 1680, returned in 1692 and desired to move west to the Hopi villages, which remained closed to Spanish incursions.
68 Spanish Exploration in the Southwest, p. 454; Sedelmayr, pp. 34-35.
Bringing the Pima villages under the influence of the Church would also aid Spain in its immediate objective of establishing a presidio on the upper Gila River. Combined with presidios in Terrenate (on the San Pedro River), Janos (Chihuahua), El Paso (on the Rio Grande) and in New Mexico, Spain assumed the Apache would have little choice but to confine their attacks on “the heathen [tribes] of the north,” rather than on the Spanish and Indian settlements to the south. This in turn would open up new “districts, ranches, haciendas, and mines of good quality” to Spanish settlement. Should the country be settled, Sedelmayer opined, “God would reward the royal largess for all disbursement with this additional allurement of mines of gold and silver.”

During the final years of Spanish administration, there was limited commerce between Spain and the Pima. Diego Bringas, traveling north from Sonora to resolve internal disputes among the Franciscan priests laboring in the Pimeria, visited the Pima villages in 1796-1797 seeking—unsuccessfully—to persuade the Crown to authorize missions on the Gila. Reminding the Crown that providence had placed the Pima “at the doors of a large gentile population so that, blessed by religion and the rule of His Majesty, they might give to those barbarous peoples proofs which are unmistakable that they, too, may share in this happiness [Christianity] by following their example,” Bringas boasted a road from Tucson to the villages could easily be constructed to tie the missions with those to the south. “If you wish to consider [crops] which can be grown there,” the Franciscan explained, “every species of grain, tree and legume would do well because of the mild climate and even temperature.” Pima fidelity and the Gila River provided Spain

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69 Sedelmayer, pp. 35, 37, 41.
with the ingredients to establish missions; monarchial authorization alone could provide the necessary means.\(^{70}\)

A deepening political crisis on the Spanish home front and on its colonial northern frontier interrupted both the ecclesiastical and economic objectives of the Crown. In the closing decades of the eighteenth century disputes over the limited water supplies in the Santa Cruz Valley north of Tucson surfaced. By the beginning of the nineteenth century, political dissension between the church and military (which was blamed for inciting Apache raids) added to the growing crisis and ended all prospects for establishing a mission in the Pima villages. Political infighting and Napoleonic events in Europe turned the Crown’s attention to more pressing matters. The drive for Mexican independence mounted and by 1821 was complete.\(^{71}\)

Mexican independence had little impact on the Pima. While Spain never conferred citizenship on the Indians, the Mexican constitution did, no longer recognizing colonial social distinctions. This meant the legal status of “Indian” was no longer recognized. Distant from the center of Mexican administration—both in Federal District of Mexico City and in the provincial capital of Hermosillo—the social experiment had no impact on the Pima. The arrival of Americans, however, did. While Americans were prohibited from entering the country under Spanish rule, Mexican law was relaxed and hundreds of American mountain men descended on the Gila River and its tributaries. The

\(^{70}\) Bringas, p. 90.

\(^{71}\) While a treaty between the Pima along the Santa Cruz River and the Spaniards allotted the former three-fourths and the latter one-fourth of the available water from a spring northwest of Tucson, it was apparently not enforced. See Officer, p. 348 note 57. The actual treaty document has never been located. Some priests in the Pimeria Alta grew increasingly cynical of the military. In 1799, the priest at Hermosillo accused the military of inciting Apache uprisings to “increase the dependency of the settlers and sedentary Indians” on the military and to deny the opportunity of “carrying the gospel” to the Pima. Ibid, p. 74. Alexander Von Humboldt, *Political Essay on the Kingdom of New Spain*, translated by John Black (New York: AMS Press, reprinted 1966 from the original 1811 London: Longman, Hurst, Rees, Orme, and Brown edition), pp. 206-207.
arrival of James Ohio Pattie on the Gila in the winter of 1826-1827 initiated a stampede of beaver trappers to the region, including Old Bill Williams, Pauline Weaver, Kit Carson and Ceran St. Vrain. The arrival of the fur trappers did not go unnoticed—by the Pima or Mexicans. To combat the number of illicit trappers in Mexico, all frontier presidios—including Tucson—were ordered to provide detailed reports on the activities of foreigners. When Williams and St. Vrain passed through the Pima villages in late October 1826, head Pima chief Antonio Culo Azul requested the men show proper identification or proceed to Tucson to report their activities. Finding the Americans friendly and open to trade, the Pima—not willing to let an opportunity slip by—initiated a brisk business of commerce. Passing through the Maricopa villages several days later, the trappers reveled in four days of gift exchange and trade with the Maricopa. 72

While trading with Mexican towns to the south (and through the annual trade fair on the Gila River), the Pima recognized the benefits afforded them by trade opportunities with Americans passing through their villages. While there is little record of trapping on the Gila River after 1827, trappers and explorers continued to follow the river west to California. Trade with villages to the south continued, although by 1840 the Pima were seldom visited by anyone except those who “in distress” visited the villages, where they were “generously furnished horses and food.” Apache raids at San Xavier resulted in

72 David J. Weber, The Taos Trappers: The Fur Trade in the Far Southwest, 1540-1846 (Norman: University of Oklahoma Press, 1982), p. 121. Weber notes Williams and St. Vrain reported the theft of blankets, mules and valise but did not attempt to stop such thievery due to their being outnumbered. Pattie’s narrative states the dates of their venture as 1825-1826, although these dates are off by one year.
Pima food crops becoming increasingly more important to Mexican and Tohono O’odham settlements in the Santa Cruz Valley south of Tucson.73

The advent of the Mexican War in 1846 ended Pima isolation. That fall, two U.S. military detachments descended upon the Pima villages. In November, General Stephen Austin Kearny led U.S. troops down the Gila and through the Pima villages enroute to San Diego, California. Henry Smith Turner, one of one hundred twenty dragoons forming the column, welcomed the “hospitality and friendship” of the Pima. They were, Turner concluded, “more industrious than I have ever found Indians—they have all the necessaries of life in sufficient abundance, & all produced by their own industry.”74

The Army of the West camped eight or nine miles above the Pima villages on November 10, where it was met by a Maricopa man searching for his cattle. The man approached the troops in a “frank, confident manner,” Topographical Engineer and Lieutenant William H. Emory observed, a “strange contrast with that of the suspicious Apache.” Soon a half dozen or more Pima approached the camp ascertaining the purpose of the visit. After the Indians dispatched word to the villages regarding the friendly nature of the visit, it was only a matter of hours before the camp was filled “with Pimos loaded with corn, beans, honey and zandias (watermelons)” to trade. While a “brisk trade was at once opened,” when Army scout Kit Carson asked to purchase bread to sustain the dragoons, he was informed “bread is to eat, not to sell; take what you want.”75

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73 Russell, p. 39; William H. Emory, “Notes of a Military Reconnaissance, from Fort Leavenworth, in Missouri, to San Diego, in California, including part of the Arkansas, Del Norte and Gila Rivers,” Senate Executive Document No. 7, 30th Congress, 1st Session (Washington, DC: Wendell and Van Benthuyisen, 1848), p. 86; Officer, p. 120.
75 House Executive Document 41, p. 82; “Report of A. R. Johnston, aide-de-camp to S. W. Kearny,” in ibid, p. 598.
The Pima knew the value of trade. When Kearny informed Azul that he had heard many good reports on the Pima and knew them to be an honest people, the chief invited the General to pass the day in trade “for such articles as [you] might require.” Turner noted the Pima “furnished supplies for [all] parties of strangers who may pass this way.” The ease and confidence by which they approached the military camp struck as unusual many of the troops. Quartermaster Major Thomas Swords erected an awning “under which to conduct the business” of trade, an event Emory described as a “perfect menagerie” of “Pimos, Maricopas, Mexicans, French, Dutch, English and Americans.”

The troops, some of whom had prior knowledge of the Pima, were struck by the nature of agriculture in the villages, including the draining of the water from the land. “We were at once impressed with the beauty, order and disposition of the arrangements for irrigating and draining the land,” Emory noted. “All the crops have been gathered in, and the stubbles show they have been luxuriant.” Large fields were subdivided by earthen borders into smaller fields for convenience of irrigating. Fifteen miles downstream, the troops passed over a luxuriantly rich, cultivated soil. “The plain,” Emory estimated, extended “in every direction 15 or 20 miles.” The Indian farmers drew off the “whole water” of the Gila for irrigation, taking care to return the unused water to the river “with little apparent diminution in its volume.”

As the troops pushed west on November 12, they came to the Maricopa villages, finding a “great deal of land” cultivated. “[A]ll that has been said of the Pimas,” Emory explained, “is applicable to them.” Maricopa men and women “came into camp at full

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77 *House Executive Document 41*, p. 85.
speed, unarmed and in the most confident manner, bringing water melons, meal, pinole and salt for trade.” On the following day, a Maricopa chief met with Kearny and told him it was good to trade but if the Americans had arrived hungry and in need “it would have been his pleasure to give us all we wanted without compensation.” Before the troops moved on, head Maricopa chief Don Jose Messio offered Kearny many “expressions of peace and friendship.”

The Pima were all that the Americans had heard and read. They were honest, industrious, confident and “perhaps better than some others we had seen.” They “surpass[ed] many of the Christian nations in agriculture,” Emory concluded, and were “little behind them in the useful arts, and immeasurably before them in honesty and virtue.” Their “high regard for morality” was evident in that no soldier reported any items stolen during his visit with the Indians. While initially suspicious of their motives, Emory soon “got an indifferent set of observations,” discovering “theft is seemingly unknown among them.” Aware of the long history of Pima fidelity and honesty, Kearny left ten or eleven travel weary mules and sundry supplies in the villages to be picked up by Colonel Philip St. George Cooke, trailing the Army of the West by six weeks. While difficult to acquire, Kearny managed to secure half a dozen oxen from the Pima. Before departing, the Colonel gave the Pima chief a letter “directing all troops that might pass [through the villages], to respect his excellency, his people, and their property.”

On the twenty-first of December, three hundred forty tired Mormon troops arrived in the villages from the south, having spent twenty-six of the previous thirty-six hours on

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80 Turner, p. 109; House Executive Document 41, p. 84.
a forced march from Tucson. Hot, thirsty and hungry, the troops were met by a cadre of mounted Pima eight miles from the villages. They came with “sacks of corn, flour, beans, etc.,” Henry Standage recalled. They were “glad to see us, running and taking us by the hand.” Upon meeting the “singularly innocent and cheerful people,” Cooke was given the letter Kearny had left behind listing the “broken down mules and two bales of Indian goods.” He then traded “every spare article for corn” mustering twelve quarts per animal for the trip to California. The “wonderfully honest and friendly” Pima eagerly traded and sold food crops “for bleached domestics, summer clothing of all sorts, showy handkerchiefs, and white beads.” So industrious were the people, Sergeant Daniel Tyler opined, “our American and European cities would do well to take lessons in virtue and morality from these native tribes.”

When the troops prepared to leave the Pima villages the following day, they were met by “groups of men, women and children” wanting to trade all sorts of “eatables, including watermelons,” and wanting only “clothing or cotton cloth and beads” in exchange. The menagerie described by Emory reminded Cooke of a crowded New Orleans market, with more than two thousand Indians in camp, “all enjoying themselves very much.” Before departing, Cooke told Azul the Pima were “the happiest and most prosperous” Indians he had ever seen. If they continued to hold to the “principles of industry, honesty, peace and cheerful content,” they would remain so. The Colonel then presented the chief with a gift of three ewes with young. From the Maricopa, Cooke

picked up Kearny’s abandoned mules. Impressed with the nature of farming in the desert, Cooke prophetically suggested to his officers “this vicinity would be a good place for exiled saints [Mormons] to locate.”

The Mexican War ended with the signing of the Treaty of Guadalupe Hidalgo in 1848, with all land north of the Gila River now under American administration. While the Pima villages on the south bank remained under Mexican rule, they would have little contact with the Mexican government to the south after the war. Their intercourse with the Americans traversing their land en route to the California gold fields increased. These travelers looked forward to visiting and trading with the Pima, aware of their friendly and hospitable disposition from the many reports left by Spanish, Mexican and early American explorers.

By the early nineteenth century the Pima economy shifted in important ways. First, the Pima increased the amount of land over which they practiced irrigated agriculture, a venture that resulted in increased raids from the Apache. Second, as Apache raids intensified, the Pima villages shifted to the south where they were established in the open away from the Gila River. Canals and ditches surrounded their villages and since fields were enclosed, fences encased villages as well. Third, as villages’ consolidated and agricultural production increased, Pima military authority was concentrated in the hands of a central tribal leader. While the villages remained autonomous in civil matters, they were united under the authority of a single military leader. Such protection enhanced

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agricultural production and trade, making the Pima the most economically powerful tribe in the region.

In the years immediately following the Mexican War, the Pima adapted to a new and dynamic economic system and recognized the value of American technology. In the four years between 1846 and 1850, their economy—with irrigated agriculture as its fulcrum—doubled, with fewer than 4,000 Pima providing food, forage and hospitality for more than 40,000 emigrants and soldiers. In the following chapter, I demonstrate the Pima desire to enhance their own economic well-being and increase their role in the emerging economy of the region. Already an industrious and hospitable people, the Pima were tested by their inability to acquire new technology and innovation as rapidly as they desired. This covetous eye sparked an increase in purloining and the adoption of certain American vices that were fueled in part by the Pima perception of emigrant waste and wealth. The Pima welcomed the emigrants, recognizing they were both the source of their new wealth and part of the necessary means of acquiring the technology that would enable them to more efficiently grow crops and expand their economy. While emigrants and access to new technology were essential to the Pima economy, these influences would in a single decade bring destabilizing influences to their villages.
CHAPTER 2

“GOOD SAMARITANS OF THE DESERT”
THE PIMA VILLAGES AND CALIFORNIA EMIGRANTS,
1848-1852

The discovery of gold near Sutter’s Mill, California, in 1848, spawned a torrent of migration across northern Sonora, Mexico (modern southern Arizona), with 40,000 emigrants traveling over one of the four southern trails that converged at the Pima and Maricopa villages. Some 8,000 mostly Mexican emigrants journeyed across the Sonora Desert between April 1848 and January 1849, with 20,000 emigrants taking one of the Southern routes in 1849. All of these travelers were aware the Pima villages were respites where stock could be recruited, rest assured, food and forage obtained and protection from marauding tribes secured. Emigrant Robert Green spoke for many when he wrote, “we are all talking strongly of being compelled to eat mule beef on the road as we wont be able to get any provision until we get among the Peima Indians.” Louisiana Strentzel, one of the few women on the trail, credited the Pima with the success of her party. “Had it not been for this water, the muskite [mesquite] beans, and the corn at the Pimose village, not one wagon could have come through.”83

Personal recollections of the 49ers visiting the Pima villages reveal much more than accounts of half-starved, thirst-craved emigrants in need of food, water and

hospitality. While the journals describe the villages as the last opportunities emigrants had to purchase fresh food and find good forage for their animals before arriving at Warner’s Ranch some 300 miles to the west in California, they also provide a window into the extraordinary economic output of the Pima. While the emigrants contemplated their visit to the villages, the Pima—with little foreknowledge of the torrent of emigrants heading their way—supplied the requisite food for the travelers, a testimony to their agricultural ability. Having “enjoyed complete autonomy” throughout the century and a half of Spanish and Mexican administration, the Pima were a people “to be wooed, rather than coerced.” Their villages on the far northern frontera of New Spain and, later, Mexico gave them a “freedom of choice and action” in their intercourse with the Americans that they used to their own benefit.84

Using as guidebooks the journals of topographical engineer Lieutenant William Emory and Colonel Philip St. George Cooke, tens of thousands of emigrants anticipated their visit to the Pima villages. Here they could acquire food and receive a friendly reception, something they would not have enjoyed since leaving Mexican towns and villages along the Rio Grande and in the upper Santa Cruz River Valley. For these travelers, the Pima villages represented an oasis where weary souls could be restored.85

84 Ezell with Fontana, “Plants without Water: The Pima-Maricopa Experience,” p. 320. Ezell adds that along with economic expansion and increased raiding, changes in Pima political leadership occurred. While no central authority existed, “a hereditary line of paramount chiefs emerged” and “supra-village councils” established. The torrent of emigrants so alarmed Mexican officials that they hastily assembled a plan for colonizing Mexico’s northern frontier in an effort to retain control of its least settled and weakest state. Patricia R. Herring, “A Plan for the Colonization of Sonora’s Northern Frontier: The Parades Proyectos of 1850,” Journal of Arizona History (10:2, Spring 1969), pp. 103-114. Parades especially feared “the land opposite the Gila (north bank under US control) will be inhabited; while years and years will pass before ours will be populated.” See also Odie B. Faulk, “Projected Mexican Colonies in the Borderlands, 1852,” Journal of Arizona History (10:2, Spring 1969), pp. 115-128.

85 Portions of Emory and Cooke’s journals were published as guides to California. One of the more famous guides was Robert Creuzbaur’s Guide to California and the Pacific Ocean illustrated by a General Map and Sectional Maps with Directions to Travelers compiled by the Best Authorities (H. Long and Brother, New York, 1849). It noted daily camps sites used by both Kearny and Cooke and included seven detailed maps.
Two main southern trails converged at the Pima villages. The more difficult was the Gila Trail, which entered from the east above the villages. The more frequently traveled route was the Southern Trail, which left El Camino Real near Doña Ana, New Mexico, and followed a southwesterly direction to the Santa Cruz River Valley whence it turned north into Tucson and then northwest to the Pima villages (see map 4). East of the villages, the Southern Trail converged with the Gila Trail and continued down the Gila River to the confluence with the Colorado River near Yuma Crossing.86

Map 4: Southern Gold Trails through the Pima Villages: 1849-1852

The most grueling part of the journey for emigrants on the Southern Trail was the *jornada* between Tucson and the Pima villages. It was regarding this portion of the trail that a group of Missouri emigrants “heard awful tales of the route ahead of us, dead animals strewing the road, wagons forsaken, human skeletons, who had famished for want of water.” Understanding these difficulties places into perspective the feelings of exhilaration and relief travelers’ experienced upon reaching the Pima villages. The ninety miles of dry, barren desert represented one of the most challenging tests emigrants experienced en route to California.87

An ambitious emigrant party traveling under ideal circumstances could complete the trip from Tucson to the Pima villages in thirty-six hours, although most took between two and six days. While scores of travelers suffered terribly from thirst and dust, there was reason for optimism if emigrants could get within fifty miles of the Pima villages. As the stream of travelers grew to a torrent, and as more suffered from thirst and heat, young Pima men patrolling the desert south and east of their villages began searching for travelers in distress. Seizing an opportunity to improve their economy by providing water to thirsty travelers earned the Pima the reputation “Good Samaritans of the desert.” Carrying “gourds of water, roasted

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pumpkins, and green corn,” Pima men and women encouraged emigrants and advertised their products to travelers in distress.88

Whether escorted by the Pima or arriving on their own, many a tongue-swollen man and beast sensed the cool, crisp waters of the Gila several miles distant and found the resolve to persevere. “After a wearisome ride,” an emigrant wrote in June 1849, “I saw the wagons and the tall cottonwoods of the Gila, and when within a half a mile of it, my tired mule smelt the running water. She pricked up her ears, gave one long bray, and struck a bee line for the Gila directly through the thick chaparral.” Some scenes were more humorous. “There was no checking their [mules] impetuosity,” Durivage added. “[S]ome of their riders were left hanging in the branches of the trees, some were thrown and some were pitched headlong into the water.”89

The Gila River represented more than just water for parched and famished emigrants. The Pima welcomed the travelers to their riverine villages, “shaking hands as old friends when meeting [as if] being separated for years.” The agrarian villages also meant food and forage could be acquired and, in that sense, symbolized a sustaining force for man and beast. Plenty of good tasting water was available and could be packed for the journey across the “Forty-Mile Desert,” as the cutoff between the Pima villages and the Gila bend was referred.90

88 My sense from reading the emigrant journals is that if a traveler were in the vicinity of Picacho Peak he might be found by the Pima “Good Samaritans.” Picacho Peak is about 45 miles south of Casa Blanca (Vah ki), the main Pima village in 1849. Benjamin Butler Harris, The Gila Trail: The Texas Argonauts and the California Gold Rush Richard H. Dillon, ed. (Norman: University of Oklahoma Press, 1960), pp. 80-81 (hereafter Journal of Benjamin Harris). Henry F. Dobyns, in The Pima-Maricopa (Baltimore: Chelsea House Publishers, 1989), pp. 13-14, refers to the Pima as “mercy riders” and as being on “mercy patrols.”
The Gila—and the Pima villages twelve miles downstream from where the main emigrant road obliquely struck the river—was easily identified from a distance due to the gallery of cottonwood, willow and mesquite that graced its path through the desert. It was “really a beautiful stream, flowing clear & rapidly,” Green wrote, allowing us to “quench our raging thirst.” Robert Eccleston, traveling to the villages via Tucson, observed, “It was not long before the road came close to the long-looked-for Gila. I rode in to see it, as the cottonwood, willow, &., obstructed the view, and found a swift stream about 40 ft. wide, not as clear as I expected to see it, but perhaps this may have been caused by the late rain.” One emigrant noted his party paid a Pima guide $10 “to conduct us to the river Gila.”

The middle Gila through the heart of the Pima villages was indeed an oasis in the desert, with a series of springs and marshes, one of which was nearly a mile long. John Audubon noted “a great many lagoons” along the river bottomlands. An abundance of

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water and trees along the river and in cienegas encouraged colonies of birds, ducks, geese, swans, cranes and “hundreds of the plumed partridge [quail].” Some cienegas and lagoons were fed by springs and were used by the Pima and their Maricopa neighbors to irrigate farmland. At least three natural springs, including Blackwater slough east of the villages, were fed by underground water sources. Springs near Maricopa Wells supplied water for Maricopa crops in addition to providing wildlife habitat.92

Cave Couts, traversing through the villages with Major Lawrence P. Graham in November 1848, described the bottomlands along the river as “far surpass[ing] anything we have ever witnessed for fertility” and representing “a series of the finest fields” he had ever seen. Emigrant Asa Clarke estimated fields extending along the river for at least five miles, being “laid out in little squares, with sluices in between, to admit the water.” One emigrant described “nearly a thousand separate enclosures” or fields divided by fences and irrigated.93

Free to adopt those forms of American technology they believed would enhance their economy, the Pima accepted select exotic ideas and tools that correlated with their existing agricultural values. Economic ventures such as mineral exploitation and sheep raising were rejected. Increased agricultural output fostered a Pima strategy of military preparedness, which enabled them to increase their productivity and position themselves as market players on the Gila and Southern trails. It also fueled a consolidation of military authority in the hands of a single leader.

92 Audubon’s Western Journal, pp. 157, 159. Journal of Asa Clarke, p. 79.
The Pima used a sophisticated water distribution system and strict social controls to irrigate their lands and insure the continuation of their economy. Emigrant Benjamin Hayes observed individual Indians “have regular days of work to which they were assigned,” with each village under a “Captain.” Committees were set up in three zones along the river to manage the irrigation system and “there were certain people in each village who decided how each ditch was to be handled” as well as to determine who was to get water. Brush dams diverted water at various points along the river into a series of acequias centered in the Vah ki (Casa Blanca) area. In 1855, Thomas Antisell, a geologist exploring possible railroad routes near the villages, pointed to the cooperative distribution of water with acequias running “around half a dozen fields, giving off branches to each.” Topographical engineer William Emory observed the Pima not only irrigated their lands but also drained it, a measure vital to prevent water logging and ensure the leaching of salts from the soil. Such flooding of their fields also fertilized the land by depositing rich silt over it, maintaining its fertility and productivity. Emigrants frequently were struck by Pima hydrology.

Because of a good supply of water, a high water table and a luxuriant soil, the Pima initially did not use ploughs in cultivating their fields, using handmade wooden axes, hoes and harrows on the “rich and easily worked” soil. Sergeant Tyler observed the

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94 Marjorie Tisdale Wolcott, ed. Pioneer Notes from the Diaries of Judge Benjamin Hayes, 1849-1875 (Los Angeles, privately printed), p. 45 (hereafter Diaries of Benjamin Hayes). Allison, “The White Man’s Friend,” pp. 9-10. Allison adds that one large committee meeting was called when the ditches had to be cleaned. Everyone had a different chore. Ditch riders ordered the water for each of the three zones and ensured that water continued to flow for users in a downstream zone. “There were strong rules. If you couldn’t take the water you couldn’t get more until the next time around. Journal of a Forty-Niner, p. 153.

Pima used “only forked sticks … to loosen the soil, as it was loose, rich and easily worked.” Other emigrants agreed agricultural implements were unnecessary as the “soil is so easily pulverized that ploughs are not needed.” Simple tools such as “a stick of wood for a plow, brush for a harrow, and a stone Muller for a Mill” served the Pima well. While utilizing simple technology, Pima fields were systematically prepared before they were planted and irrigated. Nonetheless, the Indians desired to acquire American implements so they could more efficiently and effectively cultivate their land, especially seeking tools from military officials who might have the authority to fill such requests. When Graham passed through the villages from the west in November 1848, the Pima asked for “a thousand or two spades, so they might have a great deal of corn for the next time white men came along.” Such requests were rarely made of emigrants.96

By 1850, change was afoot in the Pima mode of farming. Wooden Mexican ploughs—probably already in the villages but lacking a sufficient number of draught animals—were used by the Pima. While the Pima were known to have good horses, mules and oxen were in short supply. And while a horse might be purchased from the Pima at a high price, mules and oxen were rarely sold, demonstrating the Pima utilized these animals in their expanding agricultural endeavors. “Being an agricultural people,” William Chamberlin wrote, “they require what few animals they have for that purpose.” In December 1849, Judge Benjamin Hayes noted the Pima had “no good animals to trade” and John Bartlett, entering the villages as part of the U.S.-Mexico boundary survey

in 1852, wrote it was “impossible to procure a single mule.” William Hunter, however, noted Pima Chief Antonio Culo Azul told him he “could procure from his people whatever we stood in need of,” going so far as to indicate the Pima had “plenty of horses, mules and oxen,” which it turned out they did not have. What few draught animals the Pima had were carefully guarded because of their desire to increase their economic output.97

Mexican ploughs made of wood were more frequently observed as time passed. One emigrant noted oxen were used to pull “a long hooked-shaped stick used as a plough.” Metal axes and hoes were also documented. According to emigrant William Goulding, the Pima were using oxen to plough their land. Hayes also noted the “Pimos ploughing their lands.” Bartlett noted not all land was yet ploughed by draught animals, implying the Pima used ploughs drawn by oxen to break new land for cultivation of additional crops to market to emigrants on the western trails.98

Emigrants—especially if they carried Creuzbaur’s 1849 guide to California or were familiar with Emory and Cooke’s journals—were quick to note the Pima were “all that Colonel Emory has described them—peaceable, quiet, and honest Indians, and possessing considerable intelligence.” Harris was so struck by their integrity and goodness that he opined Americans could learn a lesson from them. “Finding a heathen people so kind, good, sympathetic, simple, honest and hospitable,” Harris chronicled,
“was indeed a surprise well worth all the toil and privation of the trip, and calculated to make Christianity blush for its meager attainments.” In an April 15, 1850, letter to his sister, W. Wilberforce Alexander Ramsey observed the Pima “have the character of being the most honest and virtuous tribe in the West…. They are peaceful and never disturb the emigrant.” Anxious to exchange food for cloth, tools and coin, the “Pimos came out to the road to see us,” one emigrant chronicled. Another noted the Pima greeted the emigrants by “bringing flour[,] corn meal[,] watermelons (sic) &c.” to trade.

Since the Gila and Southern trails entered the Pima villages above the Maricopa settlements, the Pima had an advantage over the latter in demonstrating hospitality. As thirsty or delirious emigrants came down the Southern Trail from Tucson, many were disoriented, suffered from heatstroke, or were separated from their company. While the Pima assisted these emigrants back to their villages to convalesce, they also frequently rounded up stray animals, restored their health and sold them back to the emigrants. William Chamberlin recorded he met two Pima men out in the desert looking for “horses and mules to exchange with the American emigrants.” Harris observed the Pima rounding up “Broken down or abandoned stock” and bringing them to the villages. When H.M.T. Powell lost one of his horses in the desert, a young Pima man rode twenty-five miles south searching for it, returning two days later with the horse.

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102 Diary of William Chamberlin, p. 171. Journal of Benjamin Harris, p. 80. Journal of H. M. T. Powell, p. 155. Powell adds that when the horse was recovered and returned, Azul encouraged the emigrant to pay $2.00 to the young man for his services. Having only $1.50 on his person, Powell—accompanied by Azul—rode fifteen miles to the emigrant camp to collect the remainder of the fee. The chief then demanded a shirt from Powell for his part in the matter. Not willing to accept any shirt, Azul demanded—and received—the shirt then worn by Powell.
Hospitality was also demonstrated by permitting emigrants to recruit their stock on the limited grasslands near the villages. An emigrant named Dr. J. G. Candee explained how his party remained among the Pima “several days for the purpose of recruiting our stock.” Isaac Duval and a party of Texas Argonauts spent thirteen days at the Pima villages, with one group of weary Texans remaining in the villages for five weeks. When emigrant parties arrived, they were frequently encouraged by the Indians to “dispense with the custody of [their] horses” to be “grazed and herded at good pasture at a distance of two or three miles” from the villages. While there was little forage available en route to the villages and a limited amount near the villages along the river, grasslands did exist in several locations away from the main road along ephemeral water channels. These grasslands restored many an animal, as noted by Special Indian Agent Sylvester Mowry when he informed the commissioner of Indian affairs that the Pima “supplied many a starved emigrant, and restored his broken down animals.”103

As Head Pima Chief, Antonio Culo Azul was justly proud of his people’s reputation among the emigrants as shown by his display of their letters of commendation. Although none of these letters are known to have survived, a number of them are referenced in journals of the forty-niners and soldiers. Couts records Azul showed “passports,” or letters of commendation from a host of emigrants, including Stephen Austin Kearny. Hayes wrote Azul showed him “an imposing array of certificates of good

behavior from emigrants.” The New York Free Mill Party passed through the Pima villages and commended the chief for “the Pimos being very friendly & accommodating.” A traveler from Tennessee applauded the Pima’s “kindness and courtesy.” The Fremont Association of New York left a letter extolling the kind treatment received from the Pima. Audubon wrote that Azul—as was apparently his custom—came out to meet the emigrants and presented them with an array of letters “recommending him as honest, kind and solicitous for the welfare of Americans.” Harris added Azul “showed us many written testimonials, principally of trappers, attesting his kindness to them, even to remounting, rearming and revictualizing them.”

Inclined to generosity and charity, the Pima expected the emigrants to engage in gift exchange or, as Couts observed, “they would think hard of it.” But the Pima also knew they were highly venerated and well thought of. As a result, the 6’4” Azul expected a certain level of homage. Without the requisite regards, emigrants might experience price hikes, increased charges for services, such as rounding up stray stock, or even loss of personal possessions. Powell, traveling with an emigrant train under the leadership of a Captain White, wrote how Azul, dressed in full military regalia, came out to meet the captain as the emigrants approached. White, however, offended the aged chief by failing to exchange pleasantries and gifts. Such “cavalier treatment” bore just results. When the emigrants later sought to purchase food from the Indians they found the Pima “difficult to trade with.” The situation soon worsened when the Indians “stole a great quantity of

104 Journal of Cave Couts, p. 64. Diaries of Benjamin Hayes, p. 44. Audubon’s Western Journal, pp. 155-156. Journal of Benjamin Harris, p. 81. Not all testimonials were noteworthy. One, apparently written by Philip St. George Cooke (referenced in Adventures of Charles Pancoast, p. 246) regarding an unnamed Pima man, stated, “This fellow is a d—d Rascal. Look out for him. Lt. Cook, USA.” Green (Journal of Robert Green, p. 68) noted one letter describing the captain of the Maricopas. “The bearer of this paper calls himself a capt w[h]ether he is or not we cant say but that he is a considerable of a beggar we can testify to, his people are indolent cowardly set, & like all other injuns will steal, they have stolen several articles from us.”
things from us,” including axes, hatchets, pistols, blankets and coats. Powell attributed such theft to White’s poor treatment and his inattention to protocol. If the captain had “made the old chief some presents,” Powell penned in his journal, “and paid his compliments to him in a proper way it would not have happened.”

To those in need the Pima did not disappoint. While trade with the Pima commenced only with the permission of Azul, many hundreds—and at times thousands—of Indians entered the fray. Eccleston wrote his party found itself in the midst of a village where Pima men and women wishing to trade bundles of cornstalks used for animal forage soon surrounded them. None would sell, however, “till permission was obtained from the chief. When this was got there was great buying and trading.” Another emigrant spent four days in the Pima villages where his train was “bountifully” equipped with enough food to “supply the commissariat of an army.”

Already accomplished traders, the Pima welcomed the opportunity to trade with the Americans and Azul clearly saw it as a means to increase the overall wealth and well-being of his people. The chief, for instance, greeted Kearny while still several miles from the main Pima village, inviting the General “to pass a day in his village to give ourselves

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105 Douglas Watson, The Santa Fe Trail to California, 1849-1852: The Journal of H.M.T. Powell (New York: Sol Lewis, 1981), (hereafter Journal of H.M.T. Powell), pp. 152-153. Pancoast describes the chief’s dress. Azul “came to our camp in a full military suit with the gold epaulettes of a US General, and the regulation belt and sword.” His appearance, while imposing and benevolent—was “rendered a little ridiculous by the fact that his pants were six or eight inches too short.” Anna Raschall Hannan, ed. The Adventures of Charles Edward Pancoast on the American Frontier: A Quaker Forty-Niner (Philadelphia: University of Pennsylvania, 1930), (hereafter Adventures of Charles Pancoast), p. 246. Many emigrants recorded descriptions of Azul. Turner wrote, “never did I look upon a more benevolent face than that of the old chief” (Journals of Henry Turner, p. 109). Cave Couts noted Azul told the American troops “he would be responsible” for any theft that occurred while they were guests among the Pima (Journal of Cave Couts, p. 64). Wood writes one of the emigrants lost a buffalo robe to theft but that the chief, after making a long speech to his people, secured its return (Journal of Harvey Wood, p. 12). Durivage observed Azul was “a very dignified-looking old fellow” (Journal of John Durivage, p. 219). Harris called Azul “Statesmanlike” and “handsome” (Diary of Benjamin Harris, p. 80). When Aldrich lost blankets, guns and cooking utensils to theft, Azul—unable to persuade the guilty party to return the articles, “replaced the missing blankets with two of his own” (Lorenzo D. Aldrich, A Journal of the Overland Route to California and the Gold Mines (Los Angeles, California: Dawson’s Book Shop, 1950), p. 54 (hereafter Journal of Lorenzo Aldrich). Evidently the chief rode one of the finest horses among the Pima (Diary of Robert Eccleston, p. 210).

an opportunity of trading with his people.” John Griffin, assistant surgeon with the Army of the West, observed the Pima “were most eager to trade” and did so with “the greatest confidence, showing not the slightest fear as the mountain Indians did.” Audubon wrote many of the Pima “who came to trade had already made up their minds only to do so for some particular article, and in those cases it was not of the least avail to offer anything else.”

A desire and willingness to trade emerged from the surplus of food grown by the Pima. To store surplus food for any length of time required efficient and effective storage capabilities. To trade and sell such quantities of food as demanded by the emigrant market further required the ability to store large quantities of food for extended periods. Such care was demonstrated by the fine Pima subterranean and woven granaries kept “full of pumpkins, mellons (sic), corn &c.” Emory noted corn, beans and wheat being stored in “large baskets” with corn in some places stored “in baskets covered with earth, and placed on the tops of the domes (of their homes).” By mid century every Pima family had “a granary, or store house, which is much larger and better constructed than their huts.”

Figure 2:3. The Pima stored thousands of pounds of food to sell and trade with emigrants in granaries. John Russell Bartlett print, 1852.
As emigrant traffic increased, the Pima shifted almost exclusively to the trading and selling of their products, both of which increased their material prosperity.\textsuperscript{109} Considered “a shrewd” and “keen” people who were “willing to trade for anything that will better their present appearance,” the Pima initially traded to acquire white domestics, colorful cloth, pants, vests, shoes, stone beads, and red flannel. What emigrants needed most from the Indians was food and forage, both for their own sustenance and for that of their animals. Pima corn and wheat, along with beans, pumpkins, and melons, were most in demand by emigrants. While there were periodic attempts by emigrants to purchase or effect an exchange for the limited number of Pima mules and oxen, the Pima declined as these beasts of burden were essential to their economy. Corn sold for fifty cents a basket that contained six to eight pints and a small bundle of corn stalks to feed livestock sold for a quarter. While many emigrants purchased as much food and forage as prudent, the largest single recorded purchase by an individual—outside of the military—was Strentzel’s twelve bushels of corn and wheat for the journey down the Gila River.\textsuperscript{110}

While corn and wheat were the main trade items, they were not the only items acquired by emigrants. Kearny purchased a cow from the Pima at a cost of $10 and other emigrants did likewise, although at a greater cost—Hayes reported one purchased at $32. Smaller quantities of food, such as dried corn, green corn, beans, peas, pinole, melons, pumpkins, potatoes, yams, tomatoes, corn meal, wheat flour, tortillas, molasses, and salt them,” emphasizing the Indians could not get the supplies and trade goods they wanted from the Sonoran towns, including Tucson. Cozzens, p. 100. \textsuperscript{109} “Report of A. R. Johnston,” in \textit{House Executive Document 41}, p. 598. Tyler, p. 232. When the Pima gave out food and water they expected reciprocity for their kindness. This generosity was part of the culture of gift giving. \textsuperscript{110} \textit{Journal of H.M.T. Powell}, p. 153. \textit{Journal of Robert Green}, p. 68. \textit{Letter from California}, p. 256. Philip St. George Cooke purchased more than 100 bushels of corn for the Mormon Battalion in 1846. He also purchased over 600 pounds of wheat flour. \textit{Henry Bigler’s Diaries}, p. 36. \textit{Senate Report No. 2}, pp. 50-54. Cook notes he had twelve quarts of corn per mule and four bushels per oxen.
all sold well. Pima blankets manufactured from indigenous short staple cotton also sold, as were gourds filled with water for use across the Forty-Mile Desert. When practical, emigrants purchased sufficient food and forage for the journey down the Gila. One traveler noted the Pima had plenty of food and carried “large quantities of corn and corn meal, wheat and flour, also beans [and] squashes to trade for old shirts, old shoes, pants, vests, beads and buttons.”

As more emigrants arrived in the villages, and as the demand for shirts, cloth and other trade items abated, the Pima shifted to more of a cash economy. An emigrant passing through the villages in the spring of 1849, for instance, observed the Pima “did not appear to know the value of money” with another stating, “money is well nigh useless to them.” This was consistent with Cooke’s comment of 1846 that the Pima “know nothing of the value of money or weights and measures.” Even when they began accepting coin the Pima “would not take money for anything near its value … prefer[ing] beads, shirts, especially red flannel, pieces of old clothe, etc.” Other emigrants wrote that brass buttons, paints, looking glasses and similar novelties remained in demand among the Indians. One emigrant found the demand for cloth so high he tore red flannel into long strips to extend his trade value. Jewelry and fancy beads were of little value although the Pima eagerly sought stone beads when they were available. Pima women especially coveted red flannel shirts, with one emigrant noting they “would give anything to get” them. By 1850 emigrants rarely saw “one of these Indians who had not on a Shirt,

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Coat or pair of pants.” As late as October 1850 the Pima—while more often than not demanding coin—relied on trade. William Miles, in the villages that fall, wrote his party asked for water and, upon receiving it, was told to “pay for it in the way of clothes, red flannel, of which they were excessively fond, and muslin shirts.” American gold coins were “indignantly refused.” When the emigrants tried to purchase melons using money the Pima laughed at them, “treating us as though they were independently wealthy, or that our cash was of no value.”

Cognizant they had a monopoly on the market along the middle Gila River, the Pima—and to a lesser extent the Maricopa—demanded increasingly higher prices for their commodities, especially when the multitude of emigrants increased. Hunter noted 800 Americans at the villages when he camped outside the main Pima village in the fall of 1849. Eccleston noted the Pima “asked a large price” for everything. The Maricopa also “asked extremely high” prices for their goods. Durivage noted “prices were enormously high, [with] a shirt being demanded for a very small quantity of any of the articles mentioned.” While the Pima did not have a set rate for their goods—allowing the market to fluctuate with demand—they were generally “reasonable in their charges.” Although white domestics were the medium of exchange in November 1846, red flannel

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and other brightly colored cloth brought the most trade value by the fall of 1849—and in some instances was the only cloth accepted.\footnote{Journal of William Hunter, p. 161. Journal of Robert Eccleston, pp. 209, 211. Journal of C. C. Cox, p. 145. Diary of John Griffin, p. 212. Journal of Cave Couts, p. 66. Diary of John Durivage, p. 218.}

As the Pima economy metamorphosed into more of a market economy, barter and trade lost its appeal and the Pima began demanding Mexican silver and American gold coins. Mexican silver had more of an immediate utility since Tucson was a Mexican military town that used silver coins as its medium of exchange. Since an array of manufactured items could be purchased in Tucson, it would be natural for silver to be accepted in exchange for Pima food supplies. While a limited number of gold coins were accepted, the Pima tried to exchange them with other American emigrants as quickly as possible. Hayes, for instance, explained Azul “was anxious to get silver for a ten dollar gold piece we gave him.” He also added he met eight Pima men en route to Tucson “to buy cattle.” Wood noted the Pima wished to exchange a $10 gold piece for “a new silver half dollar.”\footnote{Eccleston noted in his journal that on Friday, November 16, his train met five or six Pima men en route to Tucson. The men stayed with the emigrants, camped more than a day’s ride from the Gila. Eccleston noted they were well armed and well mounted. It is probable the men were on the way to Tucson to use the coin acquired from the emigrants to purchase supplies they did not already enjoy. This may have included agricultural tools and other farming necessities. Diary of Robert Eccleston, pp. 206, 210, 213. Journal of Benjamin Hayes, p. 45. Recollections of Harvey Wood, p. 12. Diary of Judge Hayes.}

To insure a favorable rate of exchange and perhaps to inflate prices, the Pima brought only “small quantities” of food to exchange with emigrants. They recognized and seemed to understand a basic principle of economics: limited supplies artificially inflate prices on the open market. Such economic savvy added to the level of prosperity enjoyed by the Pima. Emigrants, equally cognizant of such tactics, remarked the Pima always looked to the end as justifying the means. Another ploy in gaining the price they sought
was to make emigrants linger before the trading began. Hayes noted the Pima kept his party “waiting half an hour” before opening the market.115

With tens of thousands of emigrants passing through their villages, the Pima were aware of the economic opportunity facing them. While no quantitative data exist, emigrant journals support the theory that the Pima increased their agricultural output to accommodate the demands placed on them, perhaps cultivating as many as 12,500 acres of land by 1850.116 This is seen in Azul’s invitation to emigrants to forgo the California adventure and prospect locally for gold. Such an invitation was not lightly given but was proffered with a specific end in mind. “The Pima chief ineffectually solicited us to stop and mine a day or two’s journey up the Gila,” Harris wrote in the summer of 1849, “promising to furnish us a guard of fifty of his warriors with provisions, representing that gold could be dug there in paying qualities and adding that his object was to have introduced among his people trade and agricultural implements and methods from the United States.” Azul recognized emigrants had the technology and innovation his people needed to engage more efficiently in agricultural production. Eight months earlier, Couts explained Azul was “exceedingly anxious to see the white man come and live amongst them, to teach them how to make corn, big horses [houses?], and everything they did.”

116 The figure of 15,000 is roughly four times the number of Indians residing at the villages. Lieutenant A. B. Chapman estimated the population at 4,117 in 1858. See “Goddard. Bailey to Charles E. Mix,” dated November 4, 1858, pp. 207-208. Journal of Cave Couts, p. 67. Journal of Benjamin Harris, p. 82. I estimate perhaps 5,000 Pima and Maricopa living in 1849. Charles Olberg (“Report on the San Carlos Irrigation Project and the History of Irrigation along the Gila River, Appendix A” in Hearings before the Committee on Indian Affairs, House of Representatives on the Conditions of Various Tribes of Indians, Volume 2—Appendixes, Washington, DC: Government Printing Office, 1919, pp. 59-60), estimated the number of acres farmed by the Pima and Maricopa in 1850 at 12,450. Assuming each Pima and Maricopa consumed five bushels of wheat and five bushels of corn per year (Castetter and Bell, p. 55) the Indians would have grown about 2,500 acres in wheat and 2,083 acres in corn in 1849. This totals 4,583 acres. Considering smaller amounts of cotton, melons, pumpkins and squash were grown—say 1,500 acres total—then the Indians would have farmed around 6,000 acres for their own use, meaning of course they doubled their production to provide for the emigrant demand. Sylvester Mowry wrote the Commissioner of Indian Affairs in November 1859 that the Pima and Maricopa had increased their production that year to 15,000 acres. Trade continued with emigrants, Mexican towns in Sonora and with two new parties—army posts and the Overland Mail lines. See “Sylvester Mowry, Report to A. B. Greenwood, Commissioner of Indian Affairs, dated Los Pinos, October 6, 1859,” in Annual Report of the Commissioner of Indian Affairs 1859 (Washington, DC: George W. Bowman, Printer, 1860) pp. 360-361.
While none of the emigrants permanently remained in the villages at this time, Azul’s invitation is intriguing as it provides a glimpse into the mind of the chief as he contemplated the future economy of his people. Clearly this vision included education for the Pima so that they might better provide for the demands of the emigrant market.

As their perceived level of importance increased and their recognition of the value of money heightened, the Pima’s demand for coin as the medium of exchange increased. An emigrant visiting the villages in the latter part of 1849 noted the Pima knew “the value of money” while another remarked they “asked high prices in money (emphasis in original).” Eccleston noted the Pima were well supplied with clothing and wore only “the most flashy colors,” suggesting the Indians’ demand for such trade goods may have already been—or was nearly—saturated. When he attempted to buy some ponies, Eccleston was told the Pima would accept cash only, no trade. When he bought corn from the Maricopa a few days later he paid “a big price” in money.

While there was never a set rate for the buying and selling of Pima commodities, American extravagance contributed to its artificially inflated costs. Audubon complained American improvidence “made it difficult for anyone to make reasonable bargains

117 Journal of Captain Marcy, p. 313, notes some 15,000 emigrants on the Gila River enroute to California, about half of which had already arrived at the gold fields. A more recent study (Etter, 1993) estimates 20,000 emigrants on the southern trails in 1849..

with either the Pimos or Maricopas.” Extravagance may have been a relative concept that might not have matched the true nature of the emigrants, who dumped goods along the trail to lighten the burden on their worn and weary animals. To the Pima mind the emigrants had a dazzling array of technology, such as metal tools and better quality and more colorful cloth. These goods far surpassed the available supply of goods from poverty-stricken soldiers and settlers in Sonora, including those in Tucson. Because the emigrants carried with them the products of industrial America, the Pima—lacking such goods—would have concluded that the Americans were a wealthy people. As a literate people—with many keeping or reading journals and making drawings—the emigrants impressed the Pima, who were intrigued with the written word and hand drawn pictures. When the perceived waste of the emigrants is factored in—the emigrants (especially Graham’s column in 1848) discarded wagons, left behind scores of dead or stray animals, littered the trail with a variety of manufactured items such as wheels, crowbars, blacksmith bellows, carpenter’s tools, stoves, chairs, tents, washing machines, guns, powder, chains, saddles, harnesses, trunks of clothing, cooking utensils and a vast assortment of tools—the Pima must have concluded the Americans were wealthy and wasteful. “You can name nothing that was not lost on this road,” one emigrant wrote. Another commented that his mother would scold him if she could see “us give our shirts away[,] cut up our drawers, & destroy all we have left… but so it is everything must be left & we will do well if we get there [California] with a whole skin.”

119 Audubon’s Western Journal, p. 156. Letters from California, p. 256. Strentzel noted that many emigrants littered the land with equipment, articles and clothing just west of the Maricopa villages. “The road was strewn with dead animals, and wagons and property of every kind were left on the road all the way through the desert,” creating “great alarm amongst all the emigrants.” Journal of Robert Green, p. 68. Eccleston (Journal of Robert Eccleston, p. 215) also writes the trail west of the villages was littered with wagons, wheels, ox yokes, staples and rings, boxes, barrels, tubs and chains. Durivage, (Diary of John Durivage, p. 219) notes, for example, he
Another part of the perceived emigrant extravagance can be attributed to “a want of small change” that compelled emigrants to “frequently pay more for an article than we would if we could make the change.” Part can also be attributed to the conscious decision of the emigrants to give more in trade than the purchased foods were worth. While some emigrants burned or dumped into the river everything they left behind, others traded it away, giving far more in trade value knowing it would otherwise be lost and of no value or profit. Candee noted his train traded extravagantly with the Pima because “we must dispose of it at any rate.” As a result, emigrants traded “a good garment for a water melon” that under different circumstances they would not have exchanged. Whatever the reason, by the time John Bartlett came through the villages in 1852, most goods were sold for coin.120

As the Pima recognized the value of American gold coins and their relative value to Mexican silver, they shifted their economy to one largely based on the gold standard. Concurrently, the Pima (and Maricopa), perhaps frustrated by their inability to acquire new tools from the emigrants, grew desirous of American technology, particularly metal tools. Furthermore, mules and oxen were in demand, suggesting a shift from an economy based on manpower to one based on horsepower. Powell recorded the Pima “did not like to part with their horses,” although they offered “to give a horse for a yoke of oxen.”121

showed Azul the picture Emory drew of the chief. “He was much delighted,” Durivage wrote. Samuel E. Chamberlain, My Confession (New York: Harper and Brothers Publishers, 1956), (hereafter Diary of William Chamberlain), p. 287, notes he was in demand to draw pictures of the Pima, who were impressed with his “abilities as an artist.” Hunter (Journal of William Hunter), p. 166, notes wagons, wagon parts, spare axles, doubletrees, chains, bolts and other wagon paraphernalia littering the road.

121 Journal of H. M. T. Powell, p. 153. Eccleston remarked that the Pima warned him “to lookout for our cattle” as the Apaches had driven off a horse and several oxen a day to two before. “They are on lookout day & night,” Eccleston wrote about the Pima, “one of their watch towers being a large cottonwood near us.” Diary of Robert Eccleston, p. 209.
Throughout the first year of emigrant traffic journals bespeak of the honesty and integrity of the Pima, although there were isolated instances of pilferage. When Harvey Wood passed through the Pima villages, a member of his company lost a buffalo robe to theft, although Azul managed to secure its return after admonishing his people to respect the property of the emigrants. Wood was impressed with the effect. “Had the thief been a white man,” the emigrant opined, “talking would hardly have restored it.” Harris noted Azul specifically informed the emigrants they “need fear no pilfering, as the ‘Pimas do not steal.’” Chamberlin adds that Azul “took dinner with us” and inquired regarding how the Pima “behaved towards us.” If his people were caught stealing or misbehaving, the chief explained, the emigrants were to inform him and he “would punish them accordingly.” Passing into the Maricopa villages a day later, Chamberlin had a vastly different perception. “We found them to lie and cheat and steal” having “degenerated greatly within a few years.”

By 1850, Azul was informing emigrants “his men are not all honest[.] they will steal [having] learned to do so by the Appachees.” Consequently, Green opined, “From the account given of these injuns they must have improved very much since Mr Emory was through the country for he represents them as having all the virtues of the whites without any of the vices. The only virtue I saw among them was raising corn & wheat to sell to the emigrants at high prices.” Regarding the Maricopa, Green was less kind. “Why

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Mr Emory has given them so good a character I cant tell unless he was very hungry & Esau like sold his words for a mess of pottage.”

New stresses and demands placed on the Pima resulted from market forces—which were more pronounced as the Pima economy grew and shifted. These stresses are partially demonstrated in increased larcenous behavior. The fact that emigrants were neither soldiers under restrictive military authority nor missionaries under strict religious influence points to the beginnings of destabilizing influences in the villages. When stymied in their attempts to acquire goods—and the education that would enable them to efficiently utilize this technology and when continuing to witness the jettisoning of a wide variety of goods—the Pima’s view of integrity was modified and pilfering increased. This is observed in the loss of authority that Azul exhibited over his people. While once able to admonish his people to respect the property of the emigrants—and even able to secure the return of stolen goods through persuasion—Azul could no longer do this by 1850.

Pima desire for farm implements and beasts of burden was never sufficient to meet their demand, with the first signs of anti-social behavior appearing as their level of frustration over their inability to acquire these tools and animals rose. The Pima recognized the value of American technology and that it could benefit their economy without significantly altering their cultural values. While they might reject a mining economy, they saw American agricultural technology as compatible with their long-entrenched agrarian culture and economy.

The fact that the first complaints of larcenous behavior were leveled against the Maricopa can be explained by their geographically disadvantaged location. Emigrants entered the Indian villages from the east, meaning they reached the Pima villages first. The Maricopa had secondary access to the emigrant market and, as a result, received a lower quantity—and perhaps quality—of goods in trade. Durivage, for instance, wrote his company found the “Pima all that Colonel Emory had described them,” yet five days later when leaving the Maricopa villages he noted “a number of horses and mules were stolen.” Other emigrants were “much annoyed” (sic) by the Maricopa who “required much watching.” Hunter went so far as to note the Pima even condemned their western neighbors and allies for ignoring “the precept ‘thou shalt not steal.’”

Emigrants increasingly noted they had to watch the Pima carefully. “You have to keep a sharp look out upon their movements, and your utmost vigilance will probably be insufficient to prevent their depredations,” Lorenzo Aldrich observed. Quaker Charles Pancoast was no kinder. “We had barely unyoked our Teams before a hundred or more Indians gathered around us, and a number of our tools (which we carried in straps outside of the wagon) were stolen so adroitly that in not a single instance could we detect the Thief. We lost so many tools we became alarmed.” When a yoke of oxen was stolen Wednesday morning, three emigrants—including Pancoast—paid Azul a visit to demand its return. The chief assured the emigrants “he would get them for us” and in the meantime urged the travelers to move their camp five or six miles away from the village “where his People would not be tempted so much to steal from us.” Three days later—

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after the chief intervened—three Pima returned the missing yoke of oxen, having found it well south of the camp.125

More than 40,000 soldiers and emigrants traveled through the villages between 1846 and 1852, finding food, water and friendship from fewer than 4,000 Pima. The Pima response to this mass migration was tempered by several factors. Much like earlier Spanish missionaries and American mountain men who simply passed through the villages buying and trading for such items as they needed, the forty-niners were transients. As a result, the Pima—desiring access to new technology and innovation—saw agricultural trade and sale as the means of market enhancement. Furthermore, since the emigrants sought protection from the Apaches to the south and east of the villages and the Quechan, Yavapai and Mohave west of the villages, the Pima increased in stature. The Pima found it to their advantage to provide such protection, with their villages serving not only as centers of trade and respite but also as policing centers. Since the villages were the only places between Tucson and Warner’s Ranch where good food and forage could be purchased and water was available, they served a vital life-sustaining function. The Pima clearly understood they were the center of activity and their crops were in demand. For this reason they sought to leverage their position by upgrading technology to better provide for the emigrant market. As it was, by the early 1850s, Pima farmers lagged their American counterparts only in access to technology and in the technical skills required to engage in modern farming.126 Whereas they were once hesitant

126 See Ezell and Fontana, p. 382.
to accept American coin, by 1850 they increasingly used it to purchase goods in Tucson markets.\textsuperscript{127}

In 1854, the U.S. Government acquired the Gadsden Purchase from Mexico, bringing all the land and villages of the Pima under American administration. To connect the state of California with the rest of the nation, Congress issued federal subsidies to railroad and wagon road contractors, bringing the Pima into contact with thousands of Americans, some of whom now considered settlement in the fertile valleys of Arizona. In the following chapter, I examine the effects of the overland routes and increased traffic, as well as their effect on the creation of the Pima Reservation. The Pima exercised sovereignty over all their lands and resources, although their ability to do this was challenged by the newcomers. Federal laws, while rhetorically protecting Pima interests, facilitated the loss of Pima land and resources. The creation of the reservation in 1859 reflected this irony of federal policy. With the government encouraging settlement of the land and utilization of the riverine resources, settlers appropriated the land and water that legally belonged to the Pima. The Pima, poised to dominate the economy of the southwest New Mexico Territory, were undermined by federal policies that encouraged American settlement.

CHAPTER 3

“ADVANTAGEOUS TO THE INDIANS?”
THE OVERLAND ROUTES AND THE ESTABLISHMENT OF THE PIMA RESERVATION, 1852-1860

Despite being located on the Mexican side of the Gila River, the Pima had strong economic ties to the United States. They also incorporated a number of technological changes, most notably adopting the Mexican technique of farming with checkbeds. Fields were not yet terraced and required drainage ditches to draw off excess water. Pima lands remained “better irrigated, their crops [were] larger, and the flour which they [made] from their wheat and maize” was better than any local growers. Despite assurances from federal officials, the Pima were anxious about their land and resources.

Since the introduction of the U.S. Army in 1846, the Pima had an official diplomatic protocol with the United States. The health of Antonio Culo Azul, head Pima chief since the 1820s, was failing, and Boundary Commissioner John Bartlett would be the last American to see Culo Azul, as he died in the winter of 1855. By the time William Emory surveyed the Gadsden Purchase boundary later that year, Culo Azul’s son, Antonio, had assumed the role of head Pima chief. Antonio Azul’s first official protocol ensued after the Pima villages were brought under American administration in the

130 Bartlett, Personal Narrative 2:233.
summer of 1855. In June, Azul led a delegation of six Pima, Maricopa and Papago chiefs to Emory’s camp at Los Nogales, 150 miles south of the Pima villages, where they asserted sovereignty over their land and resources.

Meeting on June 29, Emory informed the chiefs that all rights they held under Mexican administration were guaranteed by the United States. Azul and the other chiefs, however, remained concerned about their land and resources, “manifest[ing] much anxiety to know if the transfer of Territory would affect the grants of lands ceded them by Mexico, which they now cultivate with so much success.” Emory assured the men that all titles recognized by the Mexican government would be validated by the United States and issued a public call for American citizens to respect the authority of Azul and the sovereignty of the Pima.

Emory recognized this sovereignty and informed the secretary of war that the Pima had “a just claim to their lands” and that if they were dispossessed, they would “make war on the frontier of a very serious character.” Emory—along with Lieutenant Nathaniel Michler and Antonio Azul—had much with which to be concerned. With Pima wheat ripening at the time of Michler’s visit to the villages in May, the men recognized the potential threat American settlement posed to Pima interests. Both Emory and Michler reported Azul’s regard for Pima rights and sovereignty.

133 Michler, p. 117.
The conference at Los Nogales was underscored by a rapid and growing American presence. While the first railroad survey was well to the north of the Pima villages, a second survey passed directly through the villages. Led by engineer John G. Parke, the expedition focused on potential railroad grades between the Pima villages and El Paso, Texas. Descending into Maricopa Wells, Parke’s geologist Thomas Antisell described an oasis environment well endowed with grass and water. More pertinent to Pima concerns was the message Parke sent back east: the middle Gila Valley was “susceptible of being made productive.” When Andrew B. Gray was hired by the Texas Western Railroad Company to survey yet another potential grade, Pima anxiety increased.

Pima concerns over their land titles and water rights were further heightened when Congress authorized the exploration and survey of overland transportation routes for the express purpose of enticing “agriculturists and laboring men” to the west. A southern route left El Paso (Franklin), Texas and stretched to San Diego, with the Pima villages included in any potential route due to the availability of “fine wheat and corn” within the villages. With a national road and a supply of food, emigrants would “feel some assurance” in settling in the valley, an area foreseen as “one of the most

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productive” in the country. On October 1, 1858, Leach’s wagon road opened to the public (see map 5).

Map 5: National Roads leading to the Pima villages, 1858

(Source: Author file)

In June of 1857, the U.S. Post Office awarded the California Stage Company a four-year contract to deliver mail between San Antonio, Texas, and San Diego, California. To facilitate travel, the San Antonio and San Diego Mail Line constructed eighty-seven stations between its termini, with the largest and most important at Maricopa Wells, just west of the Maricopa village of Hueso Parado. While most stage

139 “A. Anderson, Report to the Honorable Thomas L. Rusk, US Senate,” dated Washington City, March 10, 1857. RG 48, M95 (Letters Received relating to the El Paso to Fort Yuma Wagon Road, 1857-1861), roll 3.
stops were mere camping grounds, Maricopa Wells supported an adobe building complete with stock corrals and was provisioned with food and forage from the Pima villages. In time, Maricopa Wells would offer amenities not found in Arizona outside of Tucson.\(^{140}\)

**Map 6: Overland Mail Routes Across Arizona: 1858-1861**

Far better known and more of a concern to the Pima was the Butterfield Overland Mail Company, which began service on September 16, 1858. This mail line followed the Southern Trail through the Pima villages and provided semi-weekly mail service between its eastern terminals in St. Louis, Missouri, and Memphis, Tennessee, and its western terminus in San Francisco, California (see map 6). The Overland Mail road intersected with Leach’s wagon road three miles east of Capron’s Ranch (modern Sacaton), where it

\(^{140}\) The mail line made just forty trips across the desert before it abandoned its Arizona route in December 1858.
paralleled the south bank of the Little Gila River before veering west to the Casa Blanca Station. Continuing another five miles the trail bifurcated around either side of Pima Butte before descending into Maricopa Wells. Here the Overland Mail Company constructed “a substantial group of adobe buildings and a large corral.”

The organization of the overland mail lines and their selection of the Pima villages as a central stage and mail stop was no accident. Both companies were keenly aware of the services the Pima (and Maricopa) could provide, both in terms of food production and protection of the overland roads. The Pima asserted sovereignty over all of their land and resources, a proposition Isaiah C. Woods, general superintendent of the San Antonio and San Diego Mail Line, quickly discovered. Woods met in conference with the chiefs and headmen of the Pima and Maricopa on November 15, 1858, being informed that the land, grass, wood and water then being utilized by the stage line belonged to the Indians. In addition, Woods was told that he would have to pay for the protection the Indians provided the travelers and for the grass and water the mules and horses consumed at Maricopa Wells. While the arrival of the mail lines proved to be an economic boon to the Pima, they did not relinquish their sovereignty.

John Walker, assigned as the first permanent Indian agent to the “Gadsden Purchase Indians” in 1857, informed Commissioner of Indian Affairs James W. Denver the following January that the Pima were doing well and that the “mail party has made a

141 Conklin and Conklin, 2:166-170.
142 “John Walker to James L. Collins,” dated May 31, 1859, Tucson, New Mexico, RG 75, T21, Records of the New Mexico Superintendency, 1849-1880 (Letters Received from the Agencies, 1859-1860), roll 4. Walker’s understanding of Silas St. John’s appointment as special Indian agent for the Overland Mail Company was that he was “to superintend the purchase of all the grain raised by these Indians.”
144 “Sylvester Mowry to the Honorable Charles Mix,” dated Tubac, Arizona, September 24, 1858, in RG 75, M234, Letters Received by the Office of Indian Affairs, 1824-1881, (New Mexico Superintendency, 1858-1859), roll 549.
station at the Maricopa Wells which encourages the [Pima] to farm more largely as they can find a good market for a great portion of their grains.”¹⁴⁵ The Pima reminded Walker of the implements and tools they had requested earlier at Fort Buchanan. In the spring, they again informed Walker they needed ploughs, hoes, axes, shovels and spades.¹⁴⁶

That same spring Walker informed New Mexico Superintendent of Indian Affairs James L. Collins that the Pima were restless because the agricultural tools they had requested were not yet in hand. So desirous of implements were the Pima that Walker observed them selling captive Apache children at Fort Buchanan and using the proceeds to purchase “such implements as they need for their farming operations.” Collins informed Walker implements had been purchased and would be forwarded to the villages as soon as practical.¹⁴⁷

Delays in fulfilling the government promise strained relations with the Pima. When Lieutenant A. B. Chapman and a detachment of U.S. soldiers passed through the villages in late summer 1858, Maricopa village captain Juan Jose became incensed when Chapman refused his offer of five dollars apiece in gold for shovels and axes. Jose told the Lieutenant, “I believe your people are a nation of liars…. I trust you no more.” Even Antonio Azul was upset, telling Sylvester Mowry that he and his people were “sick of

¹⁴⁵ “John Walker to James W. Denver, Commissioner of Indians Affairs” dated January 16, 1858, in RG 75, M234, Letters Received by the Office of Indian Affairs, 1824-1881, (New Mexico Superintendency, 1858-1859), roll 549.
¹⁴⁶ “John Walker to the Honorable Commissioner of Indian Affairs, Charles Mix,” dated Tucson Agency, Gadsden Purchase, New Mexico, March 1, 1858, in RG 75, M234, Letters Received by the Office of Indian Affairs, 1824-1881, (New Mexico Superintendency, 1858-1859), roll 549.
promises made by every white man." Walker found himself in a quandary, caught between the Pima and government bureaucracy. In November, he dispatched another letter to Collins reminding him that the Pima planted two crops each year and that winter crops would soon be sown. The Indians “annoy me very much,” Walker wrote, and demanded the implements needed to farm land to which the Pima had constructed a new canal four miles upstream.

In January 1859, Walker again notified Collins of the importance of the promised implements. The Butterfield Overland Mail Company now had three stage stations—Casa Blanca in addition to Maricopa Wells and Capron’s Ranch—in or near the villages and if the Pima were to increase cultivation to meet local demands, they needed additional tools. This was critical as the Pima had men enough for constructing a new canal upstream but if they were to sow their crops in time they would have to abandon the construction work as they did not have tools enough to simultaneously do both jobs. The Pima, Walker boasted, were “inclined to work and love[d] to make money.”

After more than a year of delay, the Indian Service allocated $2,000 to purchase tools and implements, with Walker distributing in March the promised ploughs, harrows, spades, axes, and blacksmithing and carpenter’s tools. To assist Pima farmers with a
crop selection that appealed to the Overland Mail Company, Walker introduced American seed corn, the first non-native corn introduced among the Indians.153 In addition to corn and Spanish wheat, the Pima were also growing barley, a grain introduced by Walker a year earlier.154 So desirous were the Pima of selling their grain that they over sold, finding themselves having to request a small amount of food from Walker in May to tide them over until the harvest later that month.155

Despite material success, the Pima remained “extremely anxious about the tenure of their land.” When Sylvester Mowry met in an official capacity with the Pima, he was informed they had a recognized Spanish grant for their land, an assertion affirmed by Sonora Governor Cubillias. While no record or document existed to prove this assertion, Mowry was convinced that justice and humanity compelled the United States to recognize and protect Pima lands.156

Penning a letter to officials in Washington, D.C., Mowry underscored the rationale for such action. “Their villages [will] be made of great service to the Territory by supplying large quantities of breadstuffs,” Mowry asserted. Furthermore, their lands “are in all respects reservations, and have the advantage of being their homes by title of law and by preference.” While concerned about non-Indian settlement, Mowry believed

75, T21, Records of the New Mexico Superintendency, 1849-1880, (Letters Received from the Agencies, 1859-1860), roll 4. “John Walker to James L. Collins, Superintendent,” dated March 31, 1859, in RG 75, T21, Records of the New Mexico Superintendency, 1849-1880, (Letters Received from the Agencies, 1859-1860), roll 4. Walker arranged with the Overland Mail Company blacksmith to repair the Indians tools. The goods were transported to Maricopa Wells by Major Samuel P. Heintzelman stationed at Fort Yuma.


155 “John Walker to James Collins,” dated May 9, 1859. Walker advised the Pima to grow a large crop in the coming months and “next fall be sure to keep enough on hand for bread.” With wheat ripening in the field that month, the shortage was ephemeral.

there was ample room for settlers above the Pima villages “without interfering with the Pimos”—but only if “a man of great tact and intelligence” respected Pima sovereignty.  

Lieutenant Chapman echoed Mowry’s sentiments and encouraged the United States to recognize Pima land rights. “These Indians have strong claims upon the consideration of the United States Government, the prompt recognition of which not only justice and humanity, but sound policy, renders a matter of prime necessity.” Their agricultural skills, the lieutenant added, “present an appearance of beauty and civilization that is truly pleasing.” Pima fidelity and hospitality to American emigrants further strengthened the cause of recognizing their rights. This latter consideration warranted the Pima receiving farm implements that would assist them in expanding their agricultural capacities. “So far, they have been more blessed in giving than receiving, and have looked in vain for recognition by the government of the many kindnesses they have rendered our people.” Without recognition of their land and water rights and the distribution of gifts, the Pima might be “induce[d] to throw off an alliance from which they have derived no benefit.”

Promised they would be compensated for their hospitality with “an abundance of agricultural implements,” the patience of the Pima wore thin. When special agent Goddard Bailey visited the villages in the fall of 1858, he added to the chorus of concern. “It is necessary to do more than conciliate these Indians by presents. They must be secured in their possession of their lands.” Without such protection, the rich soil and advantageous location of their villages “will excite the cupidity of a class of settlers not

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over nice in their regard for the rights of the Indians.” Sound policy suggested “the necessity of preventing any cause of complaint on this score, and of doing so at once.”

Bailey and Mowry may have had ulterior reasons for cultivating a strong political alliance with the Pima and Maricopa: the traditional antipathy between the confederated tribes and the Apache. Bailey noted the Pima and Maricopa were “a barrier between the Apaches and all western Arizona.” As long as this alliance was secure, commerce was assured between Fort Yuma and Tucson via the Pima villages. Without it, commerce and the growth of American settlements was uncertain. To this end, Bailey recommended the adoption of several policy strategies, beginning with patenting the land of the Pima. This would prevent emigrants from settling the land, an action prohibited by the Indian Trade and Intercourse Act. Furthermore, Bailey urged the Indian Service to assign a resident government agent to serve as the local representative of the U.S. Government in its political dealings with the Pima.

Two policy considerations centered on the desires of the United States in its long-term objectives for the Arizona portion of New Mexico Territory. To ensure the Pima produced an adequate food supply for the territory, Bailey favored the Indian Service distributing “a reasonable amount” of agricultural tools and seed annually. This would encourage the Pima to bolster crop production. Bailey, like Steen before him, also encouraged Mix to provide the Pima with arms and ammunition. “[T]heir loyalty has

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159 “Goddard Bailey to Charles Mix,” dated November 4, 1858, in RG 75, M234, Letters Received by the Office of Indian Affairs, 1824-1881, (New Mexico Superintendency, 1858-1859), roll 549.
160 “Bailey to Mix,” ibid. “James L. Collins to A. B. Greenwood,” dated Santa Fe, New Mexico, August 5, 1860, in RG 75, M234, Letters Received by the Office of Indian Affairs, 1824-1881, (New Mexico Superintendency, 1860-1861), roll 550. “Cyrus Lennan to the Honorable Caleb B. Smith, Secretary of the Interior,” dated Pimo Villages, July 11, 1861, in Letters Received by the Office of Indian Affairs, 1824-1881, RG 75, M234, (New Mexico Superintendency, 1860-1861), roll 550. This was important to prevent occurrences like the Navajo experience to the north, which resulted in open hostilities. 
been sufficiently tested that they may be safely trusted” as a “frontier militia.” It was absolutely indispensable for the United States to ensure the favor of the Pima, as “these are precisely the people who will least brook an invasion of their territorial rights.”

To maintain a policy of peace and friendship, Bailey encouraged Mix to send a diplomatic representative to visit with the Pima and “ascertain their wants and wishes.” This assumed added importance when political conditions in the Pima villages grew strained when the promised agricultural implements and tools did not arrive and new traders and emigrants to the villages introduced vices, such as ardent spirits. Post Master Cyrus Lennan encouraged Collins to immediately appoint a permanent agent to the villages since the discovery of placer gold upstream brought a large number of “individuals of lawless character.” Such negative social influences created “feelings of some discord between the Pimas and Maricopas which is important to allay.”

When Walker called on the villages in the summer of 1859, he requested a diplomatic audience with Antonio Azul and the sub chiefs, seeking to ascertain the cause of their dissatisfaction. Walker discovered unfulfilled promises and the lack of agricultural implements were high on the list of disappointments. While receiving some

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161 “Goddard Bailey to Charles Mix,” dated November 4, 1858, in RG 75, M234, Letters Received by the Office of Indian Affairs, 1824-1881, (New Mexico Superintendency, 1858-1859), roll 549.
implements that spring, the Pima had expected more. Nonetheless, the Pima expanded their agricultural production, cultivating, according to Walker’s estimate, nearly 15,000 acres in 1859. They demonstrated a marked proclivity to remain the granary of the territory.163

In addition to selling more than 110,000 pounds of surplus wheat to the overland mail companies, in 1858, the Pima sold 30,000 pounds of corn and 5,000 pounds of tepary beans.164 In 1859, they sold an additional 250,000 pounds of surplus wheat to the Overland Mail Company and maintained “a large trade with emigrants” and a “considerable trade” with merchants in frontier towns such as Tucson. With the subjugation and cultivation of new lands, production continued to climb. By 1860, they sold over 350,000 pounds of wheat to the mail lines. Not surprisingly, the Pima were “in a very prosperous condition, and … they nearly all had money, in amounts varying from fifteen to twenty-five dollars.”165

Mowry and Bailey understood the importance of respecting Pima territorial integrity and sovereignty over their lands. Bailey encouraged Mix to confirm the Indian land titles as soon as possible.166 Mix agreed, informing Secretary of the Interior Jacob Thompson of the need to secure the Pima villages and agricultural lands to further stimulate their economy. Mix stressed the propriety of distributing agricultural

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163 “John Walker to A.B. Greenwood,” dated Santa Fe, New Mexico, August 6, 1859, in RG 75, M234, Letters Received by the Office of Indian Affairs, 1824-1881, (New Mexico Superintendency, 1858-1859), roll 549. Walker could make this assertion since St. John had a $2,000 appropriation to purchase tools and implements. See “Walker to Collins,” dated May 31, 1859.
164 “Silas St. John, Pimo Villages, to A. B. Greenwood, Commission of Indian Affairs,” dated September 16, 1859, in RG 75, M234, Letters Received by the Office of Indian Affairs, 1824-1881, (New Mexico Superintendency, 1858-1859), roll 549.
166 “Bailey to Mix,” dated November 4, 1858, p. 203.
implements and “the means of defense” to the Pima to “confirm their friendship.” Mix advanced a policy of furnishing the Pima with new agricultural technology to bolster production, implicitly acknowledging Pima water rights.

Mix’s report is insightful as it expresses the sense of the Indian Service and, to the extent it accepted it, the views of Congress, which was in the formative stage of establishing reservations in the West. Mix opined there were three substantive errors in federal policy: the removal of the Indians from their aboriginal homelands; the recognition of too much Indian land; and the provision of annuities. Reciting a list of less than successful reservations in California, which were established after the Senate’s failure to ratify eighteen treaties with the California tribes in 1851-1852, Mix faulted not the reservations per se but the “manner in which [the system] has been carried out.” There were too many employees “to control, assist and work for the Indians.” Mix recommended the aboriginal homelands of the Pima be recognized but in lieu of annuities and government employees, the Pima should be furnished additional agricultural tools, implements and—eventually—schools to ensure their transition to a modern economy. Such a policy would “well repay the efforts to cultivate them.”

Representative Alfred B. Greenwood (D-AR) and Senator William K. Sebastian (D-AR) cosponsored an amendment to the 1859 Indian Appropriation Act to recognize the Pima Reservation. Sebastian reminded his Senate colleagues that the Pima lived

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168 “A.B. Greenwood to Special Agent Sylvester Mowry,” dated June 13, 1859, RG 75, M234, Letters Received by the Office of Indian Affairs, (New Mexico Superintendency, 1858-1859), roll 549.
“right upon the great pathway of southern emigration to California.” Recognizing their land and respecting their rights, the Senator asserted, was important not only for ensuring provisions for travelers along the roads but also because it was a matter of “ordinary justice to secure them the homes [in] which they reside.” Some members of the Committee on Indian Affairs, believing the reservation policy had failed in California, opposed appropriating money given their concerns over potential failures elsewhere in the West.

Fearful of setting aside too much land, the House adopted a compromise proposal to create more, although smaller, reservations, limiting the Pima Reservation to no more than one hundred square miles. Being directly elected by the voters of the states, the House was concerned about a land policy that might spark a political backlash if too much land in the Gila Valley—especially fertile farmland—were set aside for the Pima. While Sebastian originally requested $15,000 to purchase suitable gifts for the Pima, the House reduced this to $10,000. A joint conference committee agreed to make future additions to the reservation provided no further expenses were incurred and on February 28 the bill was approved. A surveyed reservation not to exceed 64,000 acres (less than 2% of the aboriginal lands of the Pima) was to be set aside for the Pima and Maricopa.

Greenwood, appointed Commissioner of Indian Affairs that spring, selected Sylvester Mowry as special agent to oversee the survey of the reservation. On May 12, 1859, Greenwood informed the agent that the appropriation for the survey and gifts was

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171 The Congressional Globe, February 26, 1859, p. 1407. Appendix to the Congressional Globe, November 6, 1858, p. 41.
172 The Congressional Globe, February 26, 1859, pp. 1406-1407.
173 Congressional Globe, February 3, 1859, pp. 734-736.
174 Indian Appropriation Act for 1859, 11 Stat. 401, February 28, 1859. Antonio Azul claimed 5200 square miles (3,322,000 acres) and the Indian Claims Commission recognized Pima aboriginal rights to 3,300,00 acres. The 1859 reservation was 1.9% of this total.
at his disposal. Collins, meanwhile, desired the funds and the distribution of gifts channeled through his office in Santa Fe, writing Greenwood that it was prudent to purchase agricultural implements for the Pima as it would open the door for “instruct[ing] them in the business of farming.”

Mowry traveled to the Pima villages where, in July, he convened a meeting with Antonio Azul, Maricopa Chief Juan Cheveria and other village leaders to inform them of funds appropriated by Congress. Azul, distrustful of the Americans, immediately replied, he “had heard that story before” and that he did not “believe a word of it.” Unlike Chapman a year earlier, Mowry scolded the chief, stating, he “would tell [him] simply the truth, and that if [he] were silly enough to be imposed upon by every American who passed [by] their villages, it was an evidence, not of neglect or want of good faith by the government, but of [his] own want of sense.”

Quieted in his suspicions, Azul promptly requested calico and cotton cloth for the women, and arms, ammunition, agricultural implements, cattle and horses for the men. Having been informed by St. John that Walker had already distributed a number of ploughs, axes, shovels and hoes, Mowry reduced the number of tools he planned to purchase so he could buy the cloth the women desired. Azul then lamented how the government had neglected the Pima for so long, while at the same time “presents had been distributed to the Apaches.” Assuring the chiefs their good conduct “had not been

175 “Greenwood to Mowry,” dated June 13, 1859.
176 “James L. Collins to A. B. Greenwood,” dated Santa Fe, New Mexico, June 26, 1859, in RG 75, M234, Letters Received by the Office of Indian Affairs, 1824-1881, (New Mexico Superintendency, 1858-1859), roll 549. “Walker to Greenwood,” dated August 6, 1859. Walker was of the opinion that the Pima and Maricopa had been provided enough implements and believed some of the money should be spent on the Papago. He credited St. John’s deception and Mowry’s political aspirations for the Pima and Maricopa receiving all the funds. “John Walker to James Collins,” dated October 21, 1859, Tucson, New Mexico, in RG 75, T21, Records of the New Mexico Superintendency, 1849-1880, (Letters Received from the Agencies, 1859-1860), roll 4.
177 “Mowry to Greenwood,” dated November 21, 1859, p. 354.
unnoticed by the government,” Mowry impressed upon the men the power of the United States, reminding the leaders that although the Pima “considered themselves a great and numerous people, their entire population would only make a small pueblo in the United States.”178

After meeting with the chiefs and headmen and soliciting their input on how to spend the $10,000, Mowry proceeded to Arizona City (Ft. Yuma) where he purchased a portion of the goods, before traveling on to San Francisco to procure the remainder. When shipping arrangements were completed, the agent planned his return to the villages. While intending to purchase fifty ploughs, Mowry deemed the high costs of shipping them—$35 a piece—too costly and, since Walker and St. John had already distributed some implements, he instead purchased fifteen, along with additional shovels, spades and axes.

On his return in September, Mowry brought together the Pima and Maricopa to distribute the gifts. With Antonio Azul translating for the Pima and Francisco doing likewise for the Maricopa, Mowry remarked, “that the continuation of such friendly behavior would insure for the [Pima and Maricopa] the favorable notice and a continuance of the bounty of the government.” In other words, the Pima could expect additional technology to stimulate their economy and “make their labor more profitable.” The United States Government encouraged continued expansion of Pima agriculture, recognizing its value to territorial growth.179

178 Ibid.
179 Ibid.
Speaking for the Pima, Azul expressed deep gratitude for the gifts, telling Mowry in an hour-long speech to inform the President the Pima “would teach their young men to use the implements sent to them.” Aware the farm implements would enable his people to expand their economy, Azul also recognized the Pima would have to learn new techniques if they wanted to compete with farmers elsewhere in the country. Currently the only growers in the region, Azul was mindful that times were changing and that emigrants passing through the villages would one day settle near his people.

Once the speech making was over, the distribution of the gifts began.\(^{180}\) If the Pima still believed the Americans were untruthful, by the fall of 1859 they felt otherwise.\(^{181}\) When the remainder of the gifts and tools arrived from San Francisco, a second, larger distribution occurred on November 8. “All passed off admirably,” St. John informed Mowry, “the large number of articles enabling me to give every Indian something.”\(^{182}\) Walker noted the distribution went by village, with goods given to over 1,100 men, beginning with the oldest and most fervent cultivators of the soil.\(^{183}\) Walker estimated the Pima and Maricopa now had twenty-five ploughs and harnesses. Azul

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\(^{180}\) “Walker to Collins,” dated September 14, 1859, in RG 75, M234, Letters Received by the Office of Indian Affairs, 1824-1881, (New Mexico Superintendency, 1858-1859), roll 549.

\(^{181}\) Mowry distributed the following implements: 444 axes; 618 shovels; 31 handsaws; 706 butcher knives; 516 hoes; 240 sickles; 48 files; 270 harrow teeth; 48 mattocks; 72 whetstones; 15 grindstones and fixtures; 36 hay forks; 36 hammers; 48 iron rakes; 48 trowels; 12 screw drivers; 1 carpenter’s shop, complete set of tools; 15 plows; 15 sets of plow harnesses; 1 forge, 1 anvil and 1 vice; 1 set of sledges; 1 cast-steel hand-hammer; 3 pair tongs; 1 set of files; 12 file handles; 36 hatchets; 120 picks and handles; 7 keys of nails; 9 gross of screws; 1,400 needles; and 1 box sheet tin (for repairing implements). Goods for women included the following: 2,500 yards of manta (cotton cloth); 2,500 yards of blue drill; 125 yards of scarlet flannel; 180 yards of red flannel; 1,000 yards of calico; 180 check shirts; 120 fancy shirts; 180 hickory shirts; 50 yards Turkey red cloth for chiefs; 3 gross gilt buttons; 2 fancy bowie knives; 48 straw hats; 60 pairs shoes for chiefs and wives; 600 pounds smoking tobacco; 280 pounds white beads; 24 regatta shirts for chiefs of pueblos; 144 pipes, with stems. Seed was distributed as follows: 4,000 pounds of barley; 1 pint turnip seed. For the chiefs, Mowry purchased 1 American flag for head chief; 1 suit of uniform, complete; 1 uniform jacket for Maricopa chief. Annual Report of the Commissioner of Indian Affairs, 1859, pp. 355-356.

\(^{182}\) “Silas St. John, Pimo Villages, New Mexico, to Sylvester Mowry,” dated November 9, 1859, University of Arizona Library Special Collections, MS 282, Box 15, file 3.

\(^{183}\) “Walker to M. Steck,” dated Tucson, Arizona, November 13, 1859, in RG 75, M234, Letters Received by the Office of Indian Affairs, 1824-1881, (New Mexico Superintendency, 1858-1859), roll 549. “John Walker to James Collins,” dated November 14, 1859, Tucson, New Mexico, in RG 75, T21, Records of the New Mexico Superintendency, 1849-1880, (Letters Received from the Agencies, 1859-1860), roll 4.
believed that the Pima economy, and the water and technology to sustain it, was protected. Despite federal assurances, within three years Congress enacted the Homestead Act that, when combined with federal land and resource policies, encouraged the settlement of the West and the appropriation of the water resources that were central to the Pima economy.¹⁸⁴

Map 7: Survey Map of the 1859 Pima Reservation

Mowry did more than distribute the gifts; he also supervised the survey of the reservation (see map 7). When he traveled to the villages to distribute the gifts, engineer Andrew B. Gray accompanied him. Charged with the actual survey of the reservation,

¹⁸⁴ Within thirty years, the Pima would lose their rights to the water and stand on the precipice of starvation. Walker was told by Azul in March 1859 that the Pima wished to train one of their young men as a blacksmith so they could repair their own tools. See "Walker to Collins," dated March 31, 1859.
Gray was familiar with the villages from his days as a surveyor with the Mexican boundary survey and the Pacific railroad survey of 1855.

Gray and Mowry then met with Azul and the village leaders to discuss the survey. As Mowry made clear in his report to Greenwood, he was not particularly concerned with Pima and Maricopa desires. Mowry explained the difficulty he had describing the nature and purpose of the survey. Azul repeatedly argued the Pima “claimed as their own property the entire [middle] Gila valley.” To mitigate Pima concerns over the limits of the reservation, Mowry told Azul the survey was simply to protect and enclose their “villages and planting grounds” to prevent encroachment by settlers. If the Pima “held a valid title to any lands beyond the present survey,” Mowry assured Azul the United States Government would consider it at a future date.185

While neither placated by nor pleased with these assurances, Azul and the headmen consented to survey parties commencing work. Mowry remained in the field with Gray only long enough to establish the initial points of the reservation and the general lines that would run on both sides of the Gila River to encompass the Pima villages and fields. This was critical to determining where and for what purpose the boundary line was drawn. Mowry then departed for San Francisco, with Gray returning to Tubac.186 Returning to the Pima villages on September 5, 1859, Gray spent the next forty-three days working to complete the survey, chaining nearly seventy miles of land in order to fix the limits of the reservation and include all the Pima “gardens or planting grounds.”

185 “Mowry to Greenwood,” dated November 21, 1859, p. 358.
186 Ibid. p. 357. Gray had surveyed several mining properties in Arizona and New Mexico and belonged to a group seeking to develop silver mines in the San Pedro River Valley. While there were no known mining activities—other than some placer mining—in the Gila River Valley, Gray and Mowry were seeking the exploitation of Arizona’s mineral wealth.
Gray informed Mowry that the reservation protected “a great extent of water for their acequias.”

The reservation was in essence two trapezoids each twelve and a half miles in length and connected at their ends. Each was four miles wide and, combined, they enclosed nearly twenty-six miles of the Gila River, including the “Indian gardens,” “cultivated grounds” and “Pimo Villages.” Glaringly absent from the reservation were the Maricopa villages and fields located downstream of Pima Butte, as well as a number of upstream Pima fields near Blackwater spring. Mowry indirectly noted these lands, telling Greenwood, “The attention of the department is respectfully called to the necessity of an early settlement of the titles of the Pimo and Maricopa Indians to the lands above and below their present reservation on the Gila.”

The Butterfield Overland Mail Company was no innocent bystander in how the reservation was surveyed. In July, before Mowry and Gray laid out the boundary monuments for the reservation, Silas St. John—a special Indian agent employed by the Overland Mail Company—dispatched a letter to Collins alleging that Thomas Dicky, a federally licensed trader operating a store at Maricopa Wells, was selling ardent spirits to the Indians. If substantiated, this violated the Indian Trade and Intercourse Act. When

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187 “Silas St. John to Sylvester Mowry,” dated October 6, 1859, in University of Arizona Library Special Collections, MS 282, Box 15, file 3. See also ibid, RG 75, M234, Letters Received by the Office of Indian Affairs, 1824-1881 (Pima Agency 1859-1861), roll 669. “A.B. Gray to Sylvester Mowry,” dated Pimo Villages, October 17, 1859, in Annual Report of the Commissioner of Indian Affairs, 1859, p. 358. “John A. Clark, Surveyor General, to J.M. Edwards, Commissioner of the General Land Office,” dated Santa Fe, New Mexico, November 30, 1861, in RG 75, M234, Letters Received by the Office of Indian Affairs, 1824-1881 (New Mexico Superintendency, 1860-1861), roll 550. Clark reported the field notes of the survey were never filed with the General Land Office. No field notes have ever been located. Searches of the National Archives in Washington, DC, Laguna Niguel, California and the Pima Agency have all been fruitless.

188 “Mowry to Greenwood,” dated November 21, 1859, p. 359.

189 “Silas St. John to James Collins,” dated U.S. Indian Agency, Pimo Villages, New Mexico, July 12, 1859, RG 75, M234, Letters Received by the Office of Indian Affairs, 1824-1881 (New Mexico Superintendency, 1858-1859), roll 549.

190 “An Act to regulate trade and intercourse with the Indian tribes, and to preserve peace on the frontiers,” 2 Stat 139, section 21. “An Act to amend an act, entitled ‘An act to regulate trade and intercourse with the Indian tribes and to preserve peace on the frontiers,’ approved thirtieth of March, one thousand eight hundred and two,” 3 Stat. 682. For a thorough examination of the formative policy regarding Indians
Walker investigated the allegation, he concluded its object was an attempt by St. John to drive off or buy out Dicky so the Overland Mail Company could “monopolize all the trade with the Indians.”

While Dicky sold alcohol to emigrants, he had been set up by St. John for the purpose of forfeiting his license, although in September Greenwood informed Collins that Dicky had never been licensed by the Indian Service. Within days Dicky sold his establishment to the Butterfield Overland Mail Company, which immediately closed the store. While St. John was “not popular” among the Indians or emigrants, he succeeded in driving out the Overland Mail Company’s chief competitor at Maricopa Wells.

The 1859 Act of Congress specified land was to be set apart “for the confederated bands of Pimas and Maricopas.” How the reservation was surveyed, however, is explained by the actions of the Butterfield Overland Mail Company and is instructive in determining why the Maricopa villages and their cultivated lands were excluded from the reservation. When Greenwood instructed Mowry to survey the reservation, he reminded the special agent the Butterfield Overland Mail Company had recently established a station in Casa Blanca along the national road. “As your survey may embrace it,” Greenwood instructed Mowry, “you can say to the Indians, if they consent to its occupancy, that such will confer no title upon the contractors but it will revert to them immediately upon the discontinuing the use of it for the purpose now occupied, but, of course, if they do not give their consent the contractors will have no right to its use, but


192 “Walker to Collins,” dated September 14, 1859. *The Weekly Arizonian*, September 29, 1859, p. 3. In September, Capron and his business partner Hiram Stevens relocated their business to Tucson, presumably because their trading license was not renewed.
must abandon it.”193 Mowry, in turn, notified the Overland Mail Company that it could
“acquire no title” to any land within the proposed reservation, a proposition to which St.
John took issue.194

The Indian Office was concerned that the Butterfield Overland Mail Company
would claim a 320-acre tract of land in the midst of the Pima villages and use it as the
vehicle to either corner the Pima wheat market or control it. “You should apprize the
contractors that their occupancy of the land at that point can confer no title upon them to
the same,” Greenwood stressed to Mowry, “either at present or prospectively.”195 In
October, Gray was visited by William Buckley, Superintendent of the Tucson sector of
the Butterfield Overland Mail Company, and was told the company was claiming 320
acres “at this place,” a reference to Casa Blanca. Buckley further informed Gray that the
newly established Indian agency was on land claimed by the mail company. St. John
acknowledged “the [Overland Mail] Company neither owned nor claimed any land or
property here prior to July 3, 1859,” although as the local company official, St. John
nonetheless informed Gray the Overland Mail Company was asserting its right to claim
the same land for its own purpose. The date is instructive, as the Pima had agreed to set
aside the same ground for agency purposes on May 30, with construction of the buildings
commencing in June.196

194 “Mowry to Greenwood,” dated November 21, 1859, p. 360. St. John took exception because, having driven out Dickey, he
apparently operated a private trading post at Maricopa Wells, using the facilities of the Overland Mail Company. For this he would be
fired in October. He left Maricopa Wells in early November, returning to Washington, DC to seek a post in the War Department.
“John Walker to James Collins,” dated October 1, 1859, and “Walker to Collins,” dated December 2, 1859, in RG 75, T21, Records of
the New Mexico Superintendency, 1849-1880, (Letters Received from the Agencies, 1859-1860), roll 4.
195 “Mowry to Greenwood,” dated June 13, 1859. The San Antonio and San Diego Mail Line did not have legislative approval to claim
320 acres at each of its station, but the Butterfield line did.
196 “Silas St. John, Report to Special Agent Sylvester Mowry,” dated Los Pinos, October 6, 1859, in Annual Report of the
Commissioner of Indian Affairs, 1859, p. 360.
As Gray surveyed the reservation, he advised Mowry he had included all the water of the Pima and Maricopa *acequias*, or canals. But this was not accurate, since he failed to protect the head and upper portions of the Little Gila River and all of the Blackwater spring and slough. Also omitted were the upstream irrigated lands between the Gila and Little Gila. These lands were east and north of the overland road and, although not then in cultivation, they had been previously farmed. Consequently, when Gray informed Mowry he had surveyed the reservation “in order to make it advantageous to the Indians,” he was accurate only to the extent that he protected the wagon roads and mail stations by including them within the reservation. Failing to include all of the Pima cultivated lands and the Maricopa villages and fields downstream helps explain why Azul and the village chiefs had difficulty in appreciating the motives behind the survey. Gray defined the boundaries of the reservation in such a manner as to strategically protect what the Indian Service perceived as an imminent threat from the Butterfield Overland Mail Company to patent prime land within the reservation (see map 8).\(^\text{197}\)

The Pima were disappointed over the territorial limits of the reservation. While Mowry explained to village headmen that the reservation was not intended to limit them to 64,000 acres but was, rather, designed to protect their cultivated fields, village sites and the main transportation routes from encroachment, the Pima remained frustrated.\(^\text{198}\)

St. John informed Greenwood that upstream settlement would deprive the Pima of the

\(^{197}\) With the Butterfield Overland Mail Company having already constructed two new stations just southeast of the reservation at Oneida and Bluewater, Gray and Mowry assumed it would not move its route to strike the river above the reservation. The fact that Gray surveyed the eastern boundary of the reservation more than five miles above the junction of the overland route from Tucson and the national road from El Paso confirms this. The junction of these two important roads was just above the mail station at Capron’s Ranch (Sacaton).

\(^{198}\) “Walker to Collins,” dated September 14, 1859.
low flow of the river, something that “would undoubtedly be a fruitfull (sic) source of contention and difficulty unless some law be made for the use of the water.”

Mowry and Greenwood recognized the gravity of appeasing the Pima and Maricopa since the Indians were the main auxiliary source of armed protection guarding the overland trails from marauders and thieves. If the Butterfield Overland Mail Company acquired 320 acres of prime land in the midst of the Pima villages it might very well have signaled to the Pima that the United States was not serious in its diplomatic pledge of protecting their land and resources. Without controlling its own people from

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appropriating the land and resources of a long-time ally, the United States risked losing its alliance of peace and friendship. Any hostility would disrupt emigrant travel to the west and temporarily slow or halt national expansion. It was this geopolitical reality that the United States sought to mitigate. The development of mineral resources in southern Arizona—of which Mowry and Gray were intimately aware—was a fundamental force behind such policy.\footnote{A treaty was made April 9, 1863 at Ft. Yuma between southern Arizona tribes, including representatives of the Mohave, Pima, Papago, Maricopa, Quechan, Chemehuevi and Hualapai. The purpose of the treaty was to bring peace to the area, which would then allow mineral exploration to increase. RG 75, M734, \textit{Records of the Arizona Superintendency}, Roll 8.}

The 1859 reservation points to another important element that bears on Pima water rights and use. When Mowry met with the chiefs and headmen in the spring of 1859, he assured them of the protection of their rights to additional land and that “full justice would be done them by the United States government in this and every other respect.” Azul and the village leaders were promised their land would be protected and that they could expect to subjugate additional land, something they did in the fall of 1859 and again in the spring of 1860.\footnote{“Walker to Collins,” dated December 2, 1859. See also “Walker to Collins,” dated June 8, 1860, Tucson, New Mexico, in RG 75, T21, \textit{Records of the New Mexico Superintendency, 1849-1880}, (Letters Received from the Agencies, 1859-1860), roll 4.} Accomplishing this could occur only by expanding the 1859 reservation, protecting their water and ensuring the viability of their economy. “Any extensive cultivation above the Indian fields will cause trouble about water for irrigation,” Mowry opined, “and inevitably bring about a collision between settlers and the Indians.”\footnote{“Mowry to Greenwood,” dated November 21, 1859, p. 359.}

In the 1860s, the Pima economy continued to boom, especially with the advent of the Civil War. The California Volunteers depended heavily upon Pima food and forage crops, adding value to the Pima economy. While the Pima served notice that their land...
and resources were under their sovereign control, in the post-Civil War years the United States encouraged settlement of the territory. In the following chapter, I examine those events that enabled the Pima to reach the zenith of their agricultural economy in the nineteenth century. By the end of the decade, the Pima stood on the precipice of far-reaching cultural change. While in former years they controlled their own destiny, the rapidity of change brought about by the Civil War, diminished Pima sovereignty as federal policies disadvantaged the Indians and resulted in emigrants settling in the Gila and Salt River valleys where they diverted an increasing amount of water from the same sources as did the Pima.
CHAPTER 4

“THE GRANARY OF ARIZONA”
CIVIL WAR, SETTLERS AND PIMA AGRICULTURE:
1860-1869

The mood in the Pima villages in 1860 was one of tranquility. The Pima had “a
good many implements for farming and fine lands to enclose and increase their farming
operations.” While the San Xavier Papago and local Mexican settlers near Tucson
selected a “water Alcalde” to oversee the division of the water from the Santa Cruz River,
this pertained to the Santa Cruz Valley, not the Gila Valley. Nonetheless, Mowry and
Walker focused government attention on protecting Pima water rights, as “any extensive
cultivation” above the villages would create challenges for Pima water users. Charles
Poston, appointed Arizona Territory’s first Superintendent of Indian Affairs in 1863,
foresaw “discontent and disturbance” if settlers established farms and towns above the
Pima villages.

The beginning of the American Civil War illustrated two important themes. First,
Pima wheat and corn was critical to the war effort, both for the invading Confederacy and
the occupying Union forces. Neither could adequately control the territory without access
to the Pima wheat market. Secondly, the Pima villages and presence were critical to the
war effort. The Indians protected the communication lines, served as an auxiliary force
during post occupation of the territory and, because of their hospitality and friendship,
aided the United States, only to be repaid by the expropriation of their land and resources.
after the war. When the war ended in 1865, the Pima were at the zenith of their agrarian economy. By 1870, their sovereignty was diminished and they were no longer in control of their own destiny.

The 1860 decennial census for the first time included the Pima and Maricopa, estimating 7,291 acres of land in cultivation within the villages. David Miller, the census enumerator for “Arizona County,” arrived in the villages in November and placed the population at 3,714, of whom 3,320 were Pima. Seven hundred thirty-six farmers cultivated an average of 9.9 acres each. More than 194,000 bushels of wheat, 252,000 bushels of corn and 8,000 bushels of beans were grown, as shown in table 1.

<table>
<thead>
<tr>
<th>Village</th>
<th>farmers</th>
<th>acres</th>
<th>wheat in bushels/ (per acre)</th>
<th>corn in bushels/ (per acre)</th>
<th>beans</th>
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<tr>
<td>Agua Raiz</td>
<td>108</td>
<td>1,148</td>
<td>25,650 (22.34)</td>
<td>40,875 (35.06)</td>
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<td>Cerrito</td>
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<td>431</td>
<td>9,590 (22.25)</td>
<td>15,995 (37.10)</td>
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<td>Arenal</td>
<td>101</td>
<td>993</td>
<td>24,640 (24.81)</td>
<td>31,525 (31.75)</td>
<td>1,207</td>
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<td>Cachanillo</td>
<td>92</td>
<td>872</td>
<td>21,125 (24.23)</td>
<td>26,100 (29.93)</td>
<td>943</td>
</tr>
<tr>
<td>Casa Blanca</td>
<td>59</td>
<td>587</td>
<td>15,375 (26.19)</td>
<td>18,875 (32.16)</td>
<td>554</td>
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<td>Hormiguero</td>
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<td>31,250 (24.81)</td>
<td>38,675 (34.84)</td>
<td>1,250</td>
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<tr>
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<td>468</td>
<td>15,300 (32.69)</td>
<td>18,200 (38.89)</td>
<td>482</td>
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<td>Old Mount Top</td>
<td>84</td>
<td>850</td>
<td>28,250 (33.24)</td>
<td>32,650 (38.41)</td>
<td>925</td>
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<tr>
<td>Hueso Parado*</td>
<td>50</td>
<td>442</td>
<td>10,020 (22.67)</td>
<td>14,125 (31.96)</td>
<td>396</td>
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<tr>
<td>Sacaton*</td>
<td>39</td>
<td>390</td>
<td>13,500 (34.62)</td>
<td>15,450 (39.62)</td>
<td>390</td>
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<tr>
<td>Totals</td>
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<td>7,291</td>
<td>194,700 (26.70)</td>
<td>252,470 (34.60)</td>
<td>8,065</td>
</tr>
</tbody>
</table>

* Maricopa Villages

(Source: Wilson 1999, IX:10)

Assuming Miller’s enumeration included all cultivated land, the extent of agriculture in the villages was fifty percent lower than St. John’s estimate of 15,000 acres in 1859. Miller’s tabulation, however, was made in just ten days and he did not account for double-cropping. The Pima and Maricopa harvested 11,640,000 pounds of wheat and
15,120,000 pounds of corn in 1860. In addition, they harvested 480,000 pounds of beans, 9,200 pounds of cotton, 4,978 pounds of tobacco, 1,950 gallons of saguaro preserves and had more than 700 cows, oxen and cattle. Walker reported that same summer the Pima had “extended their planting operations far beyond any previous year,” suggesting Miller may have underestimated his count. The Pima sold a minimum of 400,000 pounds of grain to the Overland Mail Company and at least 40,000 pounds to Ammi White, a resident trader and miller who arrived in the villages in the spring of 1860.

With the election of Abraham Lincoln as President, in November 1860, the Pima villages and their crops of wheat and corn found themselves squarely in the sights of both the Confederacy and the Union. Walker left the territory in December, his political sentiments strongly allied with the South. Collins then detailed Lorenzo Labadie to Arizona as Indian agent for the “Gadsden Purchase Indians,” but he never made it to Tucson, being met by Southern sympathizers near Las Cruces and forced to return to Santa Fe. By the spring of 1861, Southern sympathizers and Apaches closed the Overland Mail route. In July, all three federal military posts in Arizona County—Ft. McLane, Ft. Breckinridge and Ft. Buchanan—were abandoned.

White and his business partner Ebenezer Noyes continued to operate their mill and store at Casa Blanca. Assured of his allegiance, Union Captain George Andrews

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205 “Walker to Collins,” dated June 8, 1860.
solicited White’s involvement to report any seditious activity. Nonetheless, with federal troops withdrawn from the territory, The Mesilla Times hinted at the possibility of the Confederacy arming the Pima and Maricopa to protect Tucson from hostile Apaches.

In the meantime, the Pima planted their crops in the winter of 1862 expecting a robust market in the spring.

White purchased Pima wheat and corn on behalf of the California Column, Union volunteers marching east from California under the command of Colonel James H. Carleton. When Confederate troops invaded New Mexico and Arizona, Union Major General George McClellan ordered the volunteers into Arizona to repel the Confederate invasion. The only settled source of food and forage throughout southern Arizona were the Pima villages and Tucson. Assured of his loyalty, Carleton directed White “to purchase all [available] wheat” from the Pima and Maricopa.

Over the winter of 1862, the column assembled at Fort Yuma and began laying up supplies for the advance across Arizona. Major Edwin Rigg, in command of Fort Yuma with the advance troops, reported to Carleton that “a large number of men” under Confederate Captain Sherod Hunter were in the territory aware the Pima had a “large quantity of wheat … and they [are] in want of it.” Rigg was concerned about the wheat at
White’s mill, fearing it would fall into the hands of the Confederacy.\textsuperscript{214} Antonio Azul requested permission to travel to Fort Yuma and discuss matters with Rigg.\textsuperscript{215}

To alleviate Pima concerns and to secure food and forage for federal purposes, Brigadier General George Wright proposed garrisoning a sub-depot at the Pima villages, to be guarded by one company of cavalry and one company of infantry. Wright believed fresh meat and flour could be secured at the villages “at fair prices.”\textsuperscript{216} White continued purchasing Pima wheat, reportedly taking in “from 140 to 180 sacks per day,” producing 200 pounds per hour.\textsuperscript{217}

Concern over the Pima wheat supply resulted from the Confederate invasion of New Mexico Territory in July of 1861. The Confederacy eyed the mineral potential of the Southwest as a means of financing the war effort in the east. While the gold fields of California were the primary focus, there were deposits of precious metals in Arizona, New Mexico and Sonora.\textsuperscript{218} On its own merit, Arizona was not a major goal of the Confederacy, although it was an essential corridor through which the Confederacy would have to pass to reach California. While sympathies in southern Arizona lay with the Confederacy, an adequate supply of food and forage crops was essential to any penetration across the territory. Outside of California, only the Pima villages had the requisite supply of food for such an undertaking. Pima and Maricopa crops, therefore, were vital to both the Confederate and Union armies.

\textsuperscript{217} “Edwin Rigg to Lieutenant B.C. Cutler,” dated Fort Yuma, March 1, 1862, enclosure No. 1 (Statement of Walker) and enclosure No. 3 (letter of Ammi Wheat), in War of the Rebellion, Series I, Volume L, Part I, pp. 898-900.
\textsuperscript{218} “John R. Baylor to General Earl Van Dorn, Commanding Department of Texas,” dated Fort Bliss, August 14, 1861, in War of the Rebellion, Series I, Volume IV, p. 23.
Lieutenant Colonel John R. Baylor of the Texas Mounted Rifles mapped out an offensive into western Arizona, selecting Captain Sherod Hunter to lead it and “secure (the) aid and goodwill” of the Pima. It was of “utmost importance” to “make a treaty” with the Pima in order to acquire their flour, wheat, corn and hay. In February 1862, Hunter took possession of Arizona, occupying Tucson unopposed on February 28. While the Santa Cruz Valley provided Hunter and his eighty mounted troops with ample supplies, he was aware that wheat and corn at the Pima villages would enable the California Column to continue its eastward march against the Confederacy. Carleton, too, was aware of the importance of Pima and Maricopa wheat and the likelihood of its capture. Capturing or controlling the Pima wheat market was critical to the Confederacy, both for its hope of holding the territory and for preventing the Union advance from securing the grain.

Hunter marched to the Pima villages on March 3 to capture the wheat supply, catching the Pima and White by surprise. White was arrested and captured for “purchasing wheat &c., for the Northern troops.” Hunter then established an amiable relationship with the Pima and urged General Henry Sibley to appoint a Confederate Indian agent for the two tribes to cultivate a political relationship and facilitate the purchase of Indian wheat. For unexplained reasons, Hunter did not negotiate a treaty as


220 When Union troops withdrew from Tucson the previous July, they burned William Grant’s flour mill and grain fields to prevent them from falling into Confederate hands. See Finch, p. 146. Charles Poston noted “The smoke of burning wheat fields could be seen up and down the Santa Cruz Valley, where troops were in retreat, destroying everything before and behind them.” Charles Poston, Building a State in Apache Land, (Tempe, Arizona: Aztec Press, 1963), p. 104.

221 “Rigg to Carleton,” dated January 17, 1862, p. 809.

Baylor had expected, even though he acknowledged Pima sovereignty over their lands and villages.\textsuperscript{223}

In the process of capturing the mill and wheat supply, Hunter controlled 1,500 sacks of wheat (150,000 pounds) that White purchased for the Union advance. Lacking the means to transport the wheat to Tucson and not wanting to destroy it for fear of alienating the Pima, Hunter returned the grain to the Indians, hoping to effect a policy of goodwill. He then occupied White’s house and awaited the arrival of the rumored train of fifty federal wagons en route to collect the wheat and transport it downstream. The train never arrived, but Union Captain William McCleave did. Riding with ten federal cavalry in front of the main body of troops, McCleave rode into a trap. Entering Maricopa Wells ten miles west of Casa Blanca, the captain stopped and left seven men behind before proceeding with a small detachment to White’s mill, where he arrived early in the morning on March 18. Appearing at the entrance to White’s residence, McCleave expected to be greeted by the trader, whom he had never met. Unsuspectingly, the captain entered the house unarmed and was captured.\textsuperscript{224}

Carleton, hoping to catch McCleave and White before they were sent as prisoners of war to Mesilla, ordered a Union offensive on April 6, sending Captain William Calloway and 272 men up the Gila to take possession of the Pima villages. Low on grain, the Union troops took empty grain sacks along for the purpose of purchasing wheat from the Pima. Ten thousand yards of manta (and old army uniforms) were transported to the villages to purchase wheat and other supplies. To ensure cooperation, Calloway was


under strict orders to “pay promptly for anything purchased from the ... Pimas and Maricopas.”

Calloway pursued Hunter to Picacho Pass, where he immediately ordered an attack. On April 15, Lieutenant James Barrett caught up with sixteen Confederate cavalry at Picacho Pass, where desperate fighting ensued for more than an hour. Barrett and two Union cavalry lay dead, while three Union and possibly two Confederate troops were injured. Calloway immediately withdrew to the Pima villages, where he could acquire supplies from the Pima “provided that we can get manta. Send us manta or we will starve.”

In the meantime, a combined Union force advanced up the Gila River to the Pima villages, where it constructed a modest military post in Casa Blanca and named it Fort Barrett. From this point the Union Army purchased “every necessary article of subsistence and forage” for 2,350 soldiers and nearly as many animals. West had a difficult time making the Pima “understand the magnitude of [Union] demands” and was fettered in his requests to purchase wheat and other supplies from the Pima as he had “nothing but promises” to offer in payment.

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226 Colton, p. 104. The three Union dead were Lieutenant James Barrett and Privates George Johnson and William S. Leonard (often listed as Denerd). “Benjamin C. Cutler—General Order #8,” dated Fort Yuma, May 10, 1862, in War of the Rebellion, Series I, Volume I, Part I, p. 1061. In his report, McCleave noted Barrett would have taken the Confederates “without firing a shot” if he had not ridden into the thicket single file, losing the element of surprise. Finch, p. 185.

227 “William Calloway to Edwin Rigg,” dated Sacaton Station, April 18, 1862 in Finch, pp. 205-206.


229 “James H. Carleton to Señor Gobernador Don Ignacio Pesqueira,” dated Fort Yuma, California, May 2, 1862, in War of the Rebellion, Series I, Volume I, Part I, p. 1044. Carleton offered to purchase from Sonora Governor Don Ignacio Pesqueira flour, pork, mutton, sugar, coffee, wheat, barley, fruit, vegetables and any other supplies the Mexicans might be willing to sell and transport to the Pima villages (later Tucson).

Cognizant the Pima had the food and forage crops necessary to sustain the army—and that the military could not simply confiscate the goods without risking hostilities with the Pima—West agreed to a scale of prices with the Indians: one yard of manta would be exchanged for four quarts of flour, seven quarts of wheat, four quarts of pinole, fifty pounds of hay or 150 pounds of green fodder. The daily consumption of the advanced guard of the California volunteers was equivalent to 400 yards of manta. West quickly discovered the Pima were not willing to “trade wheat for more manta than they wanted for the moment.” More importantly for military concerns, West was acutely aware that Pima and Maricopa demands for manta would decline “after 20,000 yards have been distributed,” and the army already had an obligation for 3,000 yards. While at that instant seeking to purchase a standing field of wheat, West feared that if the Pima did not agree to sell more wheat, he might have “to enter their wheat fields and cut the grain for forage.” In a private letter to Carleton, West reiterated an earlier request for 5,000 pounds of Indian trade goods, believing such goods “would work wonders” in securing additional wheat from the Pima.231

In mid-May, as West prepared to advance on Tucson via Fort Breckinridge, additional manta, calico, flannel and drills arrived from Fort Yuma. More than 30,000 pounds of Pima wheat was purchased in one day and all outstanding credits were redeemed. Despite the windfall, West remained concerned that there was “no guarantee how long the flow of grain [would] continue.” Nonetheless, he estimated that when the wheat crop was harvested he would be able to purchase an additional 400,000 pounds. To

convert the grain into flour required White’s mill be repaired or that a small mill be sent from San Francisco. West was further aware of the value of arming the Pima and Maricopa in their campaign against the Apaches. “It would be of much benefit to us in our negotiations about supplies,” West reminded his superior officers. Carleton agreed.

When Carleton arrived in the Pima villages on May 23, he purchased an additional 143,000 pounds of wheat and expected to buy another 200,000 pounds when it matured. Having met in council with Antonio Azul and the village leaders, Carleton promised to send from San Francisco fifteen wagon loads of trade goods for the Pima and Maricopa. “The Pima and Maricopa are the finest Indians I have ever seen,” Carleton waxed, and should be afforded every advantage. To this end, he requested 100 old percussion muskets and 10,000 rounds of buck and ball cartridges (and bullet molds) be sent to Fort Barrett to be distributed to the leading men. “This would be a great favor to this worthy people, who have always been our fast friends.”

From Tucson, West discovered wheat difficult to procure and, where it was available, its cost—6 cents per pound—“exorbitant.” While expecting the per pound cost to drop after an estimated 100,000 pounds was harvested in the coming weeks, West proposed introducing “a train load of wheat from the Pimas”—as a show of competition to drive down the costs in the Santa Cruz Valley.

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The temporary redoubt constructed at Fort Barrett was moved upstream by order of Carleton on June 21 to a more defensible position where it would also better protect the national roads that entered the villages.235 Now located within a mile and a half of Sacaton Station on the Overland Mail route, two companies of troops were stationed at the post to guard 200,000 rations. They also continued purchasing grain from the Pima. The wheat mill—six miles downstream—was afforded all necessary protection.236

As the California Column moved east towards Mesilla and the Rio Grande, Carleton moved his headquarters from the Pima villages to Tucson. The demand for Pima wheat, however, did not lessen. By August, Fergusson dispatched Lieutenant C. P. Nichols to the villages to determine if any “Mexicans or others are trading with Indians.” Any traders other than White and his business partners were to be arrested and brought to Tucson to be charged with interfering with military orders. Nichols was also ordered to purchase all the wheat and flour he could and make whatever arrangements necessary for the purchase of future wheat.237

While the war effort after 1862 shifted east of Arizona, the Pima remained very much a part of the war-effort, both through the production of wheat and other food stores and as volunteers in the Army. While wheat, flour, beef and some forage could be acquired in Sonora, most came from Arizona, with the Pima providing the bulk of the wheat and flour. In the initial months of this relationship, the California Column “trad[ed]...
under every disadvantage” because it lacked resources with which to purchase or trade for Pima crops.238 Lacking resources, the federal army purchased wheat from the Pima on credit, using vouchers that were disliked by the Indians. When White began purchasing these vouchers from the Indians “at a great discount,” Fergusson and Carleton became alarmed. White was reprimanded and warned to cease and desist. Fergusson, meanwhile, requested Lieutenant James Coleman be sent back to the villages to settle the vouchers since it was he who had initiated their use. The Pima expected full payment for their wheat, and Fergusson did not want White’s discounted purchase of the vouchers to interrupt trade. Since Coleman had completed vouchers without stating the quantity of wheat and the price the Pima were to be paid, a potentially damaging problem resulted. This act of “stupidity,” Fergusson complained to Cutler, had to be corrected and the Indians paid as soon as possible lest they cease trading.239 After months of delay, the Pima were paid with a new shipment of “Indian goods” that included tobacco, knives, paint, beads, needles, looking glasses, fishhooks, hoes and other supplies distributed “in payment of the Government indebtedness in the hands of the Indians.”240

As summer progressed, West grew increasingly desperate in securing trade goods with which to purchase wheat from the Pima, who were reluctant to accept any more vouchers. When the first supply of manta arrived, it was used to purchase 131,250 pounds of wheat. By the time Carleton purchased 143,000 pounds of wheat from the Pima, he was again reduced to issuing vouchers. Special government agent J. Ross

Browne reported the Pima and Maricopa sold in excess of 1,000,000 pounds of wheat in 1862—as well “green peas, green corn, pumpkins and melons.” Brown estimated that at least one thousand soldiers were fed with food purchased from the Pima and Maricopa, meaning at least forty percent of the food supply for the California volunteers came from the Pima and Maricopa villages.241

The spring of 1863 was as trying for Fergusson as the summer and fall of 1862. Purchases from Sonora virtually dried up as the Mexicans refused to sell more grain except it be purchased with “gold or silver.”242 By then Fergusson had amassed a debt of nearly $100,000. In October, Captain William Ffrench met with the leading men of the Pima villages and was informed by them that they had “an abundance of wheat on hand” but that they did not “offer it for sale as freely as they had some time since.”243

By the summer of 1863, wheat and other food stores were running low, a grave concern for the army. When no one answered a government advertisement for 500,000 pounds of grain that spring, the army contracted with John B. Allyn to provide grain at 3 cents per pound in exchange for trading privileges at the Pima and Maricopa villages for one year. White continued purchasing as much wheat as his mill could process. Allen purchased 600,000 pounds in 1863, even though the Indian crop was reduced due to a damaged acequia.244 By the spring of 1864, wheat was scarce in Arizona, with Carleton ordering troops to go on half rations.

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When Inspector General N. H. Davis issued an order to seize Pima wheat “as an act of military necessity,” Poston fired off a complaint to Commissioner of Indian Affairs William Dole in Washington, D.C. “A high handed outrage of this kind, perpetuated by order of the highest military authority in the territory, was not calculated to inspire the Indians with very powerful respect for the representative of their great father at Washington,” Poston lamented.\(^{245}\) Coult, nonetheless, reported to Davis that he intended to purchase the grain one way or another. He did not propose taking it by force from the Pima but, rather, seizing it from White (or others who might be holding it) and issuing receipts at 3 cents per pound. While Poston was en route to the Pima villages, Coult sent a rider to meet Corporeal John D. Walker at Bluewater and ordered him to advance to the villages and take possession of all the grain he could secure, an order with which the corporeal fully complied.\(^{246}\) Antonio Azul, however, favored the sale of all Pima grain and opposed Poston, calling him “a thief.” Azul traveled to Tucson and complained of Poston’s

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\(^{246}\) “Coult to Walker,” dated March 8, 1864, and “Coult to Davis,” dated March 10, 1864, both in RG 393 *Records of the US Continental Commands, 1821-1920*, M1120, Roll 23.
A military board subsequently found the superintendent guilty of defrauding the government.\footnote{Altshuler, pp. 32-40, provides the details of the complaint and the subsequent investigation. By the time the military board adjourned, Poston was en route to Washington, DC, where he was preparing to take his seat as a territorial delegate.}

A long-standing request of the Pima and Maricopa had been for arms with which they might better defend themselves against the Apaches, who already had access to guns. In 1860, Silas St. John broached the idea of providing 100 old Mississippi rifles for the Indians but without success. When the California volunteers arrived in the villages, Azul complained that the Apaches had firearms but the Pima could get none. West later requested arms for the Indians, believing it would aid in his efforts to purchase grain and other supplies and Carleton requested 100 old percussion muskets and 10,000 rounds be sent to the chiefs and leading men.\footnote{“West to Cutler,” dated May 13, 1862, p. 1070. “Carleton to Drum,” dated May 24, 1862, p. 1095.} None had yet been distributed.

On December 30, 1862, Major Theodore Coult reported rifles were en route to the villages, although he requested the same rifles be used to raise three companies of infantry and two of cavalry to defend southern Arizona by making punitive raids against the Apache.\footnote{“Theodore A. Coult to Lieutenant W.L. Ryerson,” dated Tucson, December 30, 1862, in \textit{War of the Rebellion}, Series I, Volume L, Part II, p. 269.} By April, Fergusson reported two sources of guns. During the winter, a shipment of arms had arrived from Fort Craig and Mesilla in New Mexico and was stored in Tucson. But there was also an invoice for rifles from Fort Yuma requested by Carleton. In April, Fergusson penned a letter to Azul informing him that he would issue the chiefs and headmen “arms and ammunition if they would make a campaign against the Apaches.” Poston also requested “some common muskets” for the Pima and
Maricopa so they might serve as “valuable auxiliaries against their hereditary enemies the Apaches.”

Unknown to Poston, arms were distributed on April 17, when Fergusson ordered Lieutenant George Burkett to proceed to the villages and distribute them. “Inform the chief and captains that the United States loans their people these arms; that if they make good use of them in defending themselves from hostile Apaches, and in making vigorous and effective campaigns against those savages, the arms will be presented to them, and that thereafter a reasonable amount of ammunition will be issued to them.” When the arms from Fort Yuma arrived, Fergusson promised to distribute them as well, noting the Pima and Maricopa would be “very serviceable as auxiliaries” to the main body of U.S. troops.

By this time the Civil War campaigns in Arizona were over. Throughout the remainder of the war, maintaining supply lines and reopening the Overland Mail routes required additional protection. When gold was discovered in Western Arizona, prospectors flocked into Yavapai and Apache country. Joseph Pratt Allen was delighted that many of the gold fields were close to “the granary of Arizona, the Pima villages.” New discoveries of gold near Prescott brought additional miners—and Apache raids seeking to drive the intruders from the land. But while Apache raids increased north and west of the Pima villages, the villages were quiet.

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251 “Charles Poston to William Dole,” dated New York, April 16, 1863, RG 75, M234, Roll 3. When arms were distributed, Poston complained it occurred without “consulting their legal guardian on the subject or even inviting his presence.” Poston was clearly involved in a power scheme and the Pima and Maricopa were in the middle. See “Poston to Brigadier General James Carleton,” dated Pima Villages, March 10, 1864, in RG 75, M234, Roll 3.

252 “D. Fergusson to Lieutenant George A. Burkett,” dated Tucson, Arizona Territory, April 17, 1863, in War of the Rebellion, Series I, Volume I, Part II, p. 405. Burkett was to take receipt from each captain for the arms issued and have Abraham Lyons (the Indian agent) witness their marks or signatures. Fifty-eight old pattern dragoon coats and jackets and 415 pompoms were to be taken to the villages to be used as trade items.

When miners petitioned the California volunteers for protection from the Apache and Yavapai, Carleton refused, informing them that until the Navajo campaign concluded, “soldiers cannot be sent.” Irate miners then petitioned Territorial Governor John Goodwin to act. Goodwin in turn requested military escorts from President Lincoln, suggesting to the President that Pima and Maricopa volunteers be recruited for the task since they had an intimate knowledge of the land and were familiar with Apache warfare.\(^\text{254}\) In the meantime, Arizona rancher King Woolsey led thirty men on a punitive expedition against the Apache. Sending a scouting party to the Pima and Maricopa villages for food rations, Woolsey managed to recruit fifteen Maricopa and twenty-five Pima to join the expedition.\(^\text{255}\)

By 1864, quasi-settled areas of the territory—largely mining camps—were “completely paralyzed by hostile Indians.” When Brigadier General John S. Mason arrived in Arizona, he found most settlers south of the Gila River had fled to Tucson while those living north of the river had almost entirely abandoned their settlements. Exploration and exploitation of the territory’s mineral wealth virtually came to a halt.\(^\text{256}\) In an attempt to open the territory, Mason proposed to blanket Arizona with light cavalry to steer hostiles into the arms of the U.S. Army. This had worked with success during Kit Carson’s infamous 1863 march through Canyon de Chelly and the Navajo Nation, and James Carleton’s Gila Expedition in 1864.\(^\text{257}\) By 1865, the situation was much different, as Goodwin’s plan to arm the Pima and Maricopa had been approved by U.S. Provost


\(^{256}\) Miller, p. 50.

Marshal, James B. Fry. Mason proposed using Pima and Maricopa allies in the field for the express purpose of engaging the Apaches.

Territorial Governor Goodwin initially approved of six companies of volunteers, although just five were actually raised: Companies A, B, C, E, and F. Some 200 Pima and Maricopa—more than one-quarter of the adult men—enlisted for a one year tour of duty.258 Thomas Ewing, then a teamster in the Pima villages, enlisted 97 Maricopa and formed Company B, with six additional Maricopa warriors later enlisting. John D. Walker, living among the Pima after his discharge from the California volunteers, recruited 94 Pima for Company C. On September 2, 1865, Companies B and C were mustered in at Maricopa Wells, with Maricopa Chief Juan Cheveria serving as captain and Antonio Azul serving as sergeant (later promoted to second lieutenant).259 Company B was dressed in a blue shirt trimmed in red while Company C was dressed in a blue shirt trimmed in blue; all Pima and Maricopa volunteers received blue military pants, black military boots and one yard of red flannel. Their primary objective was to pacify the Tonto and Pinal Apaches, for which they were to be rewarded with “Government bounty.”260 The Pima and Maricopa desire to do their part in securing Arizona Territory, believing that in so doing they were, in fact, securing their own economic well-being and protecting their own land and sovereignty. The Indians risked life and property in order to secure a stable economy for themselves and their posterity.

258 “Brigadier Jonathan S. Mason to Colonel R. C. Drum,” dated Maricopa Wells, Arizona, May 30, 1865, in War of the Rebellion, Series I, Volume L, Part I, p. 1247. Three different colored shirts were issued: 200 red, 200 yellow and 200 light blue. The Pima, Maricopa and Papago each were assigned a regimental color. Juan Cheveria led the Maricopa while Antonio Azul led the Pima. All the Indian auxiliaries were under the command of John D. Walker. Juan Cheveria requested a trip to San Francisco as his payment. The trip was approved in May 1865. See “Jonathan S. Mason to Colonel R.C. Drum,” dated Maricopa Wells, May 31, 1865, in War of the Rebellion, Series I, Volume L, Part II, p. 1251.

259 Underhill, pp. 18-23. The three remaining companies (mostly Mexican) were mustered into service in October and November.

For the remainder of 1865, the headquarters of the District of Arizona was variously located at Maricopa Wells, Fort Whipple, Tubac and Fort Goodwin, among others. In the fall of 1865, the central command was moved to a new post called Camp McDowell, although in 1866 Mason was frequently based in Sacaton, the most centralized location for communicating with troops in the field. Here an abundance of grain and food was available to serve the military.\textsuperscript{261}

Camp McDowell, constructed with the assistance of the Pima and Maricopa, was in the heart of Apache country and served as a buffer, enabling settlement to take root along the Verde and Salt rivers as well as in areas east of the Pima Reservation. The Pima were aware their actions would encourage settlement, yet they were confident in their ability to serve as the granary of the territory. While cautious of the events around them, the Pima believed they had demonstrated their loyalty and commitment to the recently arrived American officials. When their enlistments expired in September 1866, most of the 200 Pima and Maricopa returned to their fields, although seventy chose to re-enlist in November and served as spies and scouts for the U.S. Army under General Irvin McDowell.\textsuperscript{262}

Throughout the latter part of the decade, the Pima continued to tend to their fields and grow a good article of grain. J. Ross Browne, the special government agent who passed through the villages in 1864, described “large acequias tak[ing] their head near the upper boundary” of the reservation; one was on the south side of the Gila two miles


\textsuperscript{262} Annual Report of the Commissioner of Indian Affairs, 1867, p. 163. Not until 1924 were the seven surviving Pima and Maricopa veterans and four widows given a military pension. The Pima and Maricopa were discharged on September 11, 1866. Each soldier received $50 and was allowed to keep his firearms and equipment. McDowell and Maricopa Chief Juan Chervaria became and remained good friends. Constance Wynn Altshuler, \textit{Men and Brothers, Journal of Arizona History} (19:3) Autumn 1978.
below Sacaton (likely the Old Maricopa Ditch) and the other was on the north side of the river (likely the Sratuka Canal, which fed the settlements near Snaketown). These canals “with their various branches, comprise[d] nearly five hundred miles of well-defined acequias and extend[ed] over a tract of land eighteen miles in length.”263 In 1864, the Pima were especially blessed with a “bountiful crop of wheat, corn, beans, melons and pumpkins.” White estimated at least one million pounds would be sold, with wheat selling for 14 cents a pound in the mining districts. Their supply of grain “is ample for all the citizens and a portion of the troops at present in Arizona,” White added. The Pima and Maricopa used the proceeds from the sale of these goods to purchase clothing and other “articles as they require.”264

Allyn visited the villages in the summer of 1864 and estimated the amount of corn sold by the Pima and Maricopa at 250,000 pounds, in addition to the wheat White noted. Allyn speculated that Pima grain production had quadrupled since 1860.265 Having full and complete use of the waters of the Gila River—other than minimal diversions by a handful of settlers above the reservation—the Pima would have been able to cultivate additional crops without placing any strains on their water supply or on their distribution system. After White’s mill was reopened in 1862, Pima and Maricopa wheat—sold at 3 to 6 cents per pound—was transported to Prescott for use by the miners or sold under military contracts. The Weekly Arizona Miner, a Prescott newspaper, reported that “Pimo

263 Browne, p. 107.
Flour, from the steam mill of White and Noyes, is now much used in Prescott. It is good and sweet, though not so white as some of the flour from the States.”266

By mid decade, then, the Pima provided the bulk of the wheat and corn supply for the new territory and served as volunteers in the territorial militia. Wheat was selling for $2.00 a bushel, with sales to military contractors, miners in Prescott and emigrants passing through the villages. While the grain was purchased by traders, the Pima were doing well. They were doing so well, in fact, that they informed newly appointed Indian agent M. O. Davidson that they “want[ed] no aid at the hands of the Government, except such as will promote their education, morally, in the mechanic arts, and agriculture.”267

The Pima made clear their desire to remain economically independent, cognizant that dependence would erode their industriousness. When C. H. Lord, deputy agent in Tucson, visited Azul and the chiefs in May 1866, he distributed additional agricultural implements and was informed by the leading men that “they had never been so well and appropriately thought of in the selection to meet their need.” There were “many well-to-do farmers” among the Pima and Maricopa and Lord estimated they would have more than 1,500,000 pounds of grain to sell that spring.268 The Pima even expanded their area of cultivation again, reclaiming previously irrigated land above the reservation in the Blackwater area. In 1866, they sold over 2,000,000 pounds of wheat, corn and beans.269

So successful was their cultivation of crops that George Hooper, a military contractor at Fort Yuma, sought a federal license to open a trading post at the Pima

266 The Arizona Miner, August 24, 1864, p. 3.
267 “M.O. Davidson to D.N. Cooley,” dated Enriquilla, January 12, 1866, in RG 75, M234, Roll 3.
villages so that he, too, might profit by the sale of Pima and Maricopa grain. Unable to secure the required federal license, Hooper attempted to buy-out White and proposed replacing the existing mill with a larger one. White was unable to process flour quickly enough, Hooper argued, with the result that “immense quantities of flour are constantly being sent into the territory.” Increasing the sale of wheat and flour, Hooper added, would foster settlement of the territory. Rebuffed in securing a license, Hooper purchased the interests of Henry Grinnell and, by February 1867, operated three trading posts in Maricopa Wells, Sweetwater and Sacaton. Later that same spring, White sold his interest in the Casa Blanca mill to William Bichard, who then signed a military contract to annually provide 300,000 pounds of Pima flour.

Despite disputing with Indian agents and military officials, the Pima and Maricopa cultivated their land and continued to protect the central valleys of the territory. But their success also initiated the beginnings of their downfall. Afforded protection by the Pima and Maricopa, additional miners entered the territory, affording new opportunities for the sale of Indian wheat and corn. But this also opened the door to

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271 The Weekly Arizona Miner, March 23, 1867, p. 3; April 6, 1867, p. 3; and May 4, 1867, p. 3. “Davidson to Cooley,” dated January 12, 1866. In June 1863, the Army—possibly due to White’s purchase of Pima vouchers and moldy tasting flour—awarded a contract to supply grain to John B. Allen, who set up shop at Maricopa Wells, then outside of the reservation. A contract to supply grain for .3 cents per pound in exchange for exclusive trading privileges for one year was approved for Allen, although Poston overturned the agreement and restored the monopoly White enjoyed, arguing the military had no authority to engage in trade without a federal license. Miller, pp. 26-27; Constance Wynn Altshuler, Poston and the Pimas: The “Father of Arizona” as Indian Superintendent, Journal of Arizona History (18:1, 1977), p. 31. Enmity existed between the military and Poston. In April 1864 Poston halted sales of Pima wheat to the Army purchasing agent, who purchased Pima wheat and delivered it to the depot in Tucson. Poston halted the shipments under the pretense of sending the grain to the Yuma Indians. He ordered Allen removed from his trading post, relieved Indian agent Abraham Lyon and restored White’s monopoly; White was also appointed Pima Indian Agent in 1864, giving him the exclusive right to trade with the Pima and Maricopa. “Poston to Honorable Wm. P. Dole,” dated Pima Villages, Arizona, March 10, 1864, in RG 75, M234, Roll 3. “Charles Poston to Abraham Lyons,” dated Pimo Villages, January 10, 1864, RG 75, M234, Roll 3.
272 The Weekly Arizona Miner, May 4, 1867, p. 3 and June 1, 1867, p. 3. The US Army alleged that traders fleeced the Pima and Maricopa by buying grain for one or two cents per pound in trade goods while selling it for six or seven cents per pound in coin. Rusling, Across America: or the Great West and the Pacific Ocean, p. 370.
American settlers who commenced cultivating the fertile valleys. In the process, they began appropriating for their own use the water belonging to the Pima and Maricopa. In October 1863, Inspector General Colonel S. A. Lathroop warned Commissioner of Indian Affairs William Dole of “placer diggings and the copper and silver mines” in the southern portion of the territory that were attracting new prospectors. Additional deposits of gold were also uncovered near Prescott. Miners needed wheat and corn, which the Pima provided and the traders processed into flour. Prospectors required the protection of the military, which constructed posts in Apache country. The taming of the Apaches opened the door for farmers and merchants who sought out safety in the Gila and Salt River valleys. This set the settlers on a collision course with Pima water interests. Not surprisingly, Poston warned Dole that “the rapid influx of miners from California and elsewhere into the country occupied by these Indians necessitates immediate attention by the Government and the good policy of aiding them in agricultural pursuits by a liberal supply of seeds and agricultural implements.”

Despite his shortcomings, Poston foresaw the growth of the Gila and Salt River valleys in south-central Arizona. He also understood what this settlement would mean to the Pima. In another letter to Dole, Poston warned about the rapid growth of the territory, especially the lands above the Pima villages. Any settlement here—with a diminishment of their supply of water—would produce discontentment. The establishment of Fort McDowell and the re-garrisoning of other military posts, such as Fort Breckinridge,

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273 Miller, pp. 73-86.
encouraged settlement by non-Indians.\textsuperscript{277} White, while agent for the Pima and Maricopa, also speculated in land above the reservation, where he owned a ranch. In 1864, he helped establish Adamsville, the first non-Indian community above the Pima villages. While composed mostly of Mexican settlers, Adamsville quickly grew into a major town in the territory, with Bichard opening a second mill there in 1869. In May 1866, Pima agent Levi Ruggles founded the town of Florence eight miles above the reservation. Gaining a sense of security from their proximity to the Pima Reservation, more settlers began arriving and irrigating land above the reservation, protected from hostile Apaches “by the vigilance and bravery of the Pima and Maricopa.”\textsuperscript{278} Ruggles soon became the largest private landowner in the area. In the meantime, former Confederate Lieutenant Jack Swilling was attracted to the Salt River Valley and the agricultural markets at forts McDowell and Whipple. By 1871, Swilling’s development efforts in the Salt River Valley led to the cultivation of 2,200 acres of barley, 1,200 acres of wheat and 700 acres of corn.\textsuperscript{279}

In September 1866, the trouble foretold by Mowry, St. John and Poston appeared. That month, Major Andrew Alexander was dispatched to the reservation with a detachment of soldiers to quiet a land and water dispute between the settlers and the Pima. In the coming months, the dispute increased and tensions elevated. As more settlers arrived, confrontations increased.\textsuperscript{280} Forty-two individuals filed Homestead entry claims for 160 acres of land each, with Florence claiming 218 residents and nearby Adamsville

\textsuperscript{277} “John N. Goodwin to D. N. Cooley,” dated Washington, June 7, 1866, in RG 75, M234, Roll 3.
\textsuperscript{278} Annual Report of the Commissioner of Indian Affairs, 1870, pp. 118-119.
\textsuperscript{279} Miller, p. 77.
having 400. By 1868, it was apparent that the economic landscape of the Pima was rapidly changing due to the miners and farmers now pouring into central Arizona. Non-Indian grain production soon surpassed that of the Pima and Maricopa, with over 7,000,000 pounds grown in 1867. Over 1,000 acres of land was now cultivated above the Pima Reservation. In 1872, a colony of Mormon settlers arrived in the upper Gila River Valley and founded Safford, with settlements in Thatcher, Pima and Duncan following in rapid succession. Each wave of settlement further strained the water supply of the Gila River. While the army and first emigrants looked upon the Pima and Maricopa as allies and friends—with one settler commenting that “When [the Pima and Maricopa] are around one can feel a degree of safety not otherwise felt”—by 1869, public opinion was shifting against the Indians.

While the Interior Department reserved an additional 69,120 acres as reservation, in 1866, settlers continued to arrive and occupy land just above the 1859 reservation, adding to the level of tension. In March 1869, the Pima and Maricopa told Colonel Thomas Devin that the land settlers were appropriating was “inalienably theirs [as well as] the waters of the Gila.” If these resources were not protected they would “clean out” the settlers above the reservation. By fall, Superintendent George Andrews concluded the tension along the Gila was primarily due to settlers depriving the Pima and Maricopa of their water.

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282 *The Weekly Arizona Miner*, February 1, 1868, p. 2; February 8, 1868, p. 2; April 18, 1868, p. 2.
285 “George Andrews to Ely Parker,” dated Office of the Superintendent of Indian Affairs, November 6, 1869, in RG 75, M234, Roll 3.
By 1869, demands to remove intruders from the reservation and Indians from areas outside the reservation were placed on military authorities. Reports of settlers in Florence purposefully wasting “large quantities” of water in the desert in order to deprive the Pima were devastating.286 Lieutenant Colonel Roger Jones informed Commissioner of Indian Affairs Ely Parker in 1869 that during the prior two years settlers above the reservation had “opened large acequias for the purpose of irrigation. Instead of [the water] being returned to the river after it has served its purpose, it is allowed to run waste, thereby greatly diminishing the volume of water before it reaches the Pima and Maricopa reservations.”287 Such action demonstrated that the settlers saw the Pima as economic competitors and that the federal government would not intervene in the matter. This liberal federal economic policy was designed to settle the land with American citizens, not hold it for a tribal nation.

When Grossman held a council with Azul and the other headmen in October, he learned first hand of their complaints. Azul explained that the cutting of the mesquite above the reservation was a loss to the Indians that rivaled that of taking the water. “We have only a few acequias filled,” Azul added, “and cannot cultivate all our land.” He was also tired of traders that took advantage of the Indians, preferring to be paid in money for their grain so the Pima could “suit ourselves and buy where we please and what we please.” Maricopa chief Juan Cheveria agreed and demanded more traders, not less, be available so that his people would be better compensated for the sale of their goods. The leading men were in agreement that the Pima and Maricopa had every right to cultivate

287 Annual Report of the Commissioner of Indian Affairs, 1869, pp. 219-220.
land in the Gila and Salt River Valleys, where they had always farmed. Still, no relief arrived.

The Civil War initiated the end of an era in Pima history and the beginning of another that, in coming years, dramatically affected the economic landscape of the reservation. Control of the waters of the Gila River and the Pima reputation as industrious, friendly and hospitable cultivators slipped from their grasp. While the Indian villages had once been “the granary of Arizona” this, too, was slipping away. By the end of the decade, the overall well-being of the Indians was threatened by declining river flows caused by upstream diversions and the failure to extend the reservation before settlement occurred above it. Over the course of one decade, the Pima found themselves losing control of their own destiny. At the center of this battle was the diminishing stream flow in the Gila River.

Until the late 1860s, the Pima had “much confidence” in and an “unbounded friendship” for the Americans. But during the 1870s, this friendship and admiration turned to distrust and cynicism. As their water supply diminished, the Pima found themselves growing more dependent on the benevolence of the federal government to protect their rights, the same government that was encouraging the settlement of the land surrounding the reservation. While the federal government encouraged the Indians to continue their farming endeavors, and provided additional farm implements for their agricultural pursuits, Pima water rights were left unprotected. As more settlers arrived in the Gila River Valley, the matter of water and water rights grew increasingly acute.

In the following chapter, I describe that Pima water rights did not simply evaporate but that the federal government actually supported non-Indian interests in settling the land and utilizing the water resources. At the same time, the United States eroded the sovereignty of the Pima. Continued emigrant waste of water exacerbated the situation and ultimately encouraged a federal policy of disenfranchising the Pima and then proposing their removal to the Indian Territory where allegedly socially enlightened federal policies would solve the challenges facing them.
CHAPTER 5

“BETRAYAL OF FRIENDSHIP:”
A CRISIS ON THE RIVER: 1869-1880

As the 1860s drew to a close, the Pima had cause for concern. Government Indian agents Ammi White and Levi Ruggles each cornered the Pima wheat market and speculated in land above the reservation. Federal law encouraged settlement in the Gila Valley without protecting Pima water. Lieutenant Colonel Thomas C. Devin warned that water was rapidly being diverted from the Gila River and that if a dry season should occur the Pima would be without water for their fields. Furthermore, a bad class of white men and Mexicans entered the reservation and demoralized the Indians with whiskey and theft. In a letter to Commissioner of Indian Affairs Ely Parker, Colonel George Andrews noted the Pima were worse off under Ruggles than they had been two years earlier. Tension escalated as more settlers irrigated along the Gila River.

Responding to Pima complaints of diminishing river flow, Major General E. O. C. Ord, commanding the Department of California, recommended that all the land above the reservation—including the improved lands in and around Florence—be set aside as an addition to the Pima Reservation. Devin warned that if the Pima failed to receive sufficient water to irrigate their fields, they might well drive the settlers out of the valley. Superintendent George W. Dent notified the commissioner of Indian affairs that “if

289 “Thomas C. Devin to George Dent,” dated Headquarters, Department of Arizona, Tucson, March 14, 1869, RG 75, M734, Roll 2.
289 “Major John S. Sherburne to Colonel George Andrews,” RG 75, M734, Roll 3.
290 “George Andrews to Ely Parker,” dated September 9, 1869, RG 75, M734, Roll 8.
292 “E.O.C. Ord to Thomas C. Devin,” dated San Francisco, California, April 2, 1869, RG 75, M734, Roll 3.
crowded to the wall” the Pima would “fight for their rights.”

Despite his concern, Dent did nothing to alleviate the shortage of land and water to sustain Indian crops. Parker then replaced Dent with Brevet Colonel George S. Andrews and appointed Frederick E. Grossman as Pima agent. Upon his arrival in October, Grossman found serious discontent between the Indians and the American and Mexican settlers above the reservation. Much of the discontent arose from the plans of White and Ruggles to develop the Gila River Valley, each receiving official backing from territorial Governor Richard C. McCormick, who recognized settlers in the valley would be safe from Apache raids. Federal officials recognized the close proximity of the Pima Reservation to Florence rendered such land “far more valuable to settlers than other lands throughout the territory.”

Lieutenant Colonel Roger Jones, Assistant Inspector General for the U.S. Army, raised the specter of war if Pima water concerns were not addressed. Jones predicted that in a dry year Pima crops “would be ruined for want of water.” The continued waste of river water above the villages by settlers in Florence would “inevitably result in a collision.” The Pima regarded the water “as much their property as the land they cultivate,” Jones reminded Inspector General Randolph B. Marcy, and they watched the

293 “George W. Dent to Nathaniel Taylor,” dated La Paz, Arizona Territory, April 15, 1869, RG 75, M734, Roll 3. “They are brave, fearless and accustomed to arms and warfare,” Dent wrote, “and are capable of throwing us into an harassing and expensive war.”
296 “Frederick Grossman to George W. Andrews,” dated Pima villages, Arizona Territory, October 31, 1869, RG 75, M734, Roll 3. Prior to the arrival of Grossman, there were at least six unlicensed traders purchasing Pima wheat at fixed prices—paying in shoddy goods rather than in cash. Grossman initiated the practice of licensing traders. He also established the first government buildings in Sacaton.
297 Ruggles had earlier reported to Dent that the Pima Reservation was the only safe spot from Apache raiding in all of southern Arizona. Not surprisingly, nearby settlers stayed near or entered the reservation during Apache uprisings. “Ruggles to Dent,” dated Pima villages, June 20, 1867.
298 “Milton Cogswell to Thomas C. Devin,” dated Headquarters Sub-District of the Verde, Camp McDowell, Arizona Territory, November 28, 1869, RG 75, M734, Roll 4.
incursion of Mexicans and Americans “with an unfriendly eye.”

As early as June 1869, Interior Secretary J. D. Cox requested the U.S. Army to “remove all intruders from the reservation” and “to protect [the Indians] in their occupancy of the land, and in the right to the waters of the Gila for purposes of irrigation.” While the military was asked to protect Pima land and water—including the head of the Little Gila River—from encroachment, federal land laws encouraged settlement in complete disregard of Pima rights.

The crisis erupted in 1869. Following a disastrous flood the previous year that destroyed three Pima villages, the Sacaton and Casa Blanca trading posts and the Casa Blanca flour mill (Camp McDowell recorded 19.84 inches of rain during fiscal year 1869), and a poor crop in 1869, the Pima openly resisted the settlers who encroached on their ancestral land above the reservation. A detachment of troops from Camp McDowell was sent to “quell the disturbance,” although the military was in no position to war against the Pima. In the fall, 400 Indians—mainly Pima—left the reservation and claimed the fields of Mexican settlers near Adamsville, where they gathered up the corn and bean crop. Meanwhile, another group of Pima took up land off the reservation, clearly an attempt to protect the headwaters of the Little Gila River. A third group clashed with settlers in October, again demonstrating a Pima desire for the land immediately above

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300 “J.D. Cox, Secretary of the Interior, to John Rawlins, Secretary of War,” dated Department of Interior, Washington, DC, June 9, 1869, RG 393, Records of the U.S. Army Continental Commands, 1821-1920, M1120, Fort Mojave, Letters Sent and Received, 1859-1890, Roll 6.
301 “Frederick Grossman to George W. Andrews,” dated Sacaton, Arizona Territory, November 9, 1869, RG 75, M734, Roll 3. When Grossman distributed the annual goods to the Indians, in February 1870, he refused to give any goods to the Kee-Kee-Ma Village, the village allegedly responsible for the depredations at Adamsville. See “Frederick Grossman to George W. Andrews,” February 15, 1870, RG 75, M734, Roll 4. The Weekly Arizona Miner reported the Gila at flood stage was four miles wide and that it had “destroyed everything with which it came in contact,” including 75,000 pounds of grain in Sacaton belonging to trader George F. Hooper. The loss of property and crops on the reservation was reported at “upwards of $30,000.” Weekly Arizona Miner, September 26, 1868, p. 3.
their reservation. Poor rainfall in 1870 left Pima crops in ruin, with Antonio Azul publicly admitting he could no longer preserve order among the Pima. 302 While the Pima did not war against the United States, they were clearly pressuring the government to expand the reservation to include the land, water and natural spring above the villages. Andrews, seeking to pacify the Pima, instructed Grossman to provide food and other goods to keep the Indians peaceful.

By 1871, the water situation was critical on the reservation. In October, newly appointed Pima agent John H. Stout informed Vincent Colyer, chairman of the newly created Board of Indian Commissioners, that “not a drop of water” had reached the Pima fields. “The time for preparing their lands is now at hand,” Stout continued, “but having no water they can do nothing.” 303 The Indians blamed the settlers for taking their water. In despair, village Captain Kihua Chinkum visited Stout and explained the challenges facing his people. For many years, the village headman explained, the Pima “lived from what they planted,” but now they were without water. Nearly destitute, the Pima were prepared to forcibly drive the Mexican and American settlers out of the valley. After an hour of heated discussion, Stout convinced Kihua Chinkum that violence was foolish. Nevertheless, the Pima headman warned that if water was not forthcoming within the month, his people would join a number of Indian families that had already settled along the Salt River. The next day Ku-vit-ke-chin, chief of Va Vak village, announced that his

302 “Frederick Grossman to George W. Andrews,” dated Sacaton, Arizona Territory, November 11, 1869, RG 75, M734, Roll 3. Specifically, Azul reported he could no longer control more than 200 “bad young men” in his tribe who were frequently intoxicated in and around Adamsville.
people were removing to the Salt River, where water was in good supply.304

The water crisis created a
test of good will between the 700 or so settlers above the reservation and the Pima. In August of 1871, Grossman notified Herman Bendell, newly appointed Superintendent of Indian Affairs for Arizona Territory, that the Pima were leaving the reservation, stealing cattle and horses and destroying non-Indian crops. The only way to resolve their “just complaints,” he suggested, was to give the Indians “a certainty of water-privileges for irrigating purposes” and enlarge their reservation. The former could only be accomplished by constructing “permanent dams of masonry” and “large irrigation canals, not ditches” that might lead water down both sides of the Gila so as to furnish sufficient irrigation. Without government assistance, Grossman opined, the Pima “are not equal to this herculean task.”305

To ease the tensions along the Gila, Parker urged Interior Secretary Columbus Delano to enlarge the reservation by 81,140 acres. Although the military supported the proposition, Territorial Governors A. P. K. Safford and Richard C. McCormick

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304 “John Stout to Ely Parker,” dated October 25, 1871, RG 75, M234, Roll 2.
vehemently opposed any extension. On August 4, Andrews was ordered to survey the proposed extension, adopting the departmental position that the 1859 reservation provided ample room for the Indians. Nonetheless, Andrews learned firsthand from Antonio Azul and Juan Cheveria that the Indians desired the return of 5,200 square miles (3,428,000 acres) of aboriginal land along the Gila River so they might irrigate their crops, graze their animals, and gather beans from the mesquite lands.

Grossman’s assessment of the situation highlighted the ongoing challenges. He informed Andrews that the Pima had been promised by authorized agents of the government that their claim for “more land and water” would be considered. A tone of frustration crept in when Grossman reminded his superiors that “the Indians asserted that years ago they had been promised a settlement of the water question; claimed that the whole Gila River Valley had been the property of their forefathers from time immemorial, and asked that the settlers should not be allowed to occupy lands so long considered by the Indians as their property.” Fearing that without water the Indians would be “subject to such contingencies as may be produced by scarcity,” Bendell strongly supported Parker’s idea of expanding the reservation.

Government surveyors entered the field in April 1870 and surveyed an extension according to departmental limitations. Grossman reported the boundaries were “well

306 John A. Rawlins, Secretary of War; Major General E.O.C. Ord, Commander of the Department of California; and Brevet Brigadier General Thomas C. Devin, Commander of the Sub-District of Southern Arizona all favored the extension of the reservation. The Arizona Weekly Citizen also opposed the extension. See the Arizona Weekly Citizen October 15, 1870, (1:2); January 14, 1871, (1:14); and April 8, 1871, (1:26). McCormick traveled to Washington to personally oppose the extension in February of 1871.


known” to the Pima who were anxious for Congress to act on the extension. One reason the Pima were anxious to secure the land was because the proposed extension to the east encompassed the “fine facilities for irrigation” at the head of the Little Gila River. These were lands on which Mexican and American farmers were attempting to settle—and lands the Pima knew they must protect in order to ensure delivery of water to their lands on the south bank. Parker reminded the government to either extend the reservation or provide “ample homesteads in severalty” to the Pima.\textsuperscript{310}

By fall, the survey had been completed with all supporting documents forwarded to Washington, D.C. Every effort was made to avoid “any possible interference with the settlers and at the same time satisfy the reasonable demands of the Indians.” By doing so, Andrews believed the government promise to the Pima had been fulfilled. The superintendent encouraged the Indian Service to act speedily to avoid further encroachment, “which must eventually lead to a collision.” The danger was imminent that fall as the Gila River had been “very low all the season.”\textsuperscript{311}

The eastern extension included “nearly all the arable land and water privileges” that were proposed to be added to the reservation. In addition to “increase[ing] the Indians facilities for raising crops” the extension would also “quiet their complaints about the settlers using their water” and theoretically deprive the Pima of any reason to depredate. But while settlers along the Gila and in the Salt River Valley were able to plant a second crop in the summer of 1871, Pima farmers were left with inadequate water. In desperation, the Maricopa relocated off the reservation near the confluence of

\textsuperscript{310} Annual Report of the Secretary of the Interior, 1870, p. 472.

\textsuperscript{311} Annual Report of the Commissioner of Indian Affairs, 1870, p. 117.
the Salt and Gila rivers, where they again planted their fields. The Pima, meanwhile, drifted to the eastern end of the reservation searching for seepage water along the Gila.312

The Indian Service had ulterior motives for not diligently pursuing the extension of the reservation. While Parker cited the 1859 legislation creating the reservation as prohibiting any extension absent Congressional approval, the government was working towards a policy that would remove the Indians from Arizona to the Indian Territory. This policy was shaped by eastern humanitarians, public opinion and the desire to develop the Gila and Salt River valleys.313 In 1872, Commissioner Francis A. Walker further explained the Indian Service was specifically contemplating the removal of the Pima and Maricopa to the Indian Territory.314

As the water crisis deepened, public opinion shifted. No longer considered trusted allies, newspapers referred to the Pima as degenerate, insolent and dangerous. The Arizona Weekly Citizen vowed that if the Indians did not cease their depredations in the Salt River Valley there would “be such blood letting of the Pima kind as will cause a greater howl in the East than did the few drops [of Apache blood] shed near Camp Grant a short time ago.”315 Nor did the Pima view the Americans as they once had. While the Pima had taken “pleasure in feeding and assisting travelers,” they were now “reserved and uncommunicative,” fearing the loss of their land, women and water.316

Apache warfare also influenced public opinion in Arizona. Politicians and

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315 Arizona Weekly Citizen, dated Tucson, Pima County, September 9, 1871 (1:48). On October 26, 1872, (3:3) the Citizen reported a similar occurrence.
civilians, hoping to increase military protection, over-dramatized Indian-white hostilities in the territory. Without additional protection, territorial politicians and business interests feared reduced immigration and eastern capital investment, both of which were essential to exploit the rich natural resources in the territory.317

In March of 1872, Brigadier General Oliver Otis Howard arrived in Arizona to initiate President Grant’s Peace Policy among the Arizona tribes.318 Recently arrived Pima missionary Charles H. Cook met Howard at Ft. Yuma and accompanied him up the Gila and Salt rivers to Camp McDowell, where they met with General George Crook, commander of the Department of Arizona. Howard visited the Pima Reservation on the second of May, finding the Pima restless and complaining that Mexican and American settlers continued diverting their water. Lack of rain compounded their hardship. Howard informed Interior Secretary Columbus Delano that a large number of Pima and Maricopa had moved to the Salt River Valley, causing still more problems. “Pima horses get upon a farm,” Howard explained, “they are taken up or shot; retaliation comes, a house is burned, and the Pimas, as a whole, are blamed.”319 Howard suggested several possible solutions to the ongoing water problem.

Howard’s first alternative was for the government to extend the eastern boundary of the reservation to include the area around Adamsville, although he advised against this as it would involve the expense of buying up existing land claims and would not resolve the water question. Second, the government could extend the reservation as far east as

318 Vincent Colyer, chairman of the Board of Indian Commissioners, had been sent by Grant, in 1871, to negotiate peace with the tribes in Arizona. The War Department—as well as most territorial newspapers—opposed Colyer’s efforts and succeeded in convincing Grant to dispatch Howard to the territory. Colyer did nothing to protect Pima water rights.
Florence, encompassing Adamsville as well. Again, Howard discounted this alternative due to the costs of reimbursing settlers for improvements they had made on the land. Third, the federal government could construct two *acequias* upstream, one on each bank of the Gila, with a government agent ensuring a fair division of the water to all cultivators of the land. Howard dismissed this as noble but impractical, as few citizens favored the idea and it would be “too difficult of execution even with an honest and skillful agent.” The only viable option, Howard remarked, was to remove the Pima and Maricopa from the Gila River Valley. “If water continues to fail here,” the General concluded, “I recommend that steps be taken to place the Pimas where there is plenty of wood, water, and good land. It can be done either inside or outside of Arizona.”

Indian removal and consolidation of reservations were mainstays of federal Indian policy in the post Civil War years. Eastern humanitarians proposed removal of tribes to the Indian Territory where they would be introduced to “civilization.” More importantly, removal would open millions of acres of so-called surplus land. “Many tribes may thus be collected in the Present Indian territory,” Felix Brunot of the Board of Indian Commissioners explained. “The larger the number that can thus be concentrated the better for the success” of abolishing tribal status and providing for land severalty.

Removal became an obsession with Interior Secretary Columbus Delano. Delano hoped to concentrate all American Indians into the Indian Territory. According to his calculations, 172,000 American Indians were living on 96,155,785 acres of land—559 acres per capita. Another 60,000 Indians were residing on 44,154,240 acres within the

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320 Ibid., p. 154.
Indian Territory—or 630 acres per capita. “Could the entire Indian population of the country, excluding Alaska and those scattered among the states … be located in the Indian Territory,” Delano asserted, “there would be 180 acres of land, per capita, for the entire number, showing there is an ample area of land to afford them all comfortable homes.”

Delano’s proposal, while sounding doable on paper, was actually nothing more than wishful thinking. Congress had abandoned removal as an official federal policy and, short of tribal nations consenting on their own accord to relocate, there was little hope of such policy being effected. Unless the Indians cooperated in these humanitarian endeavors, Delano warned, they would be crushed by the inevitable tide of white emigration. Howard’s proposal to remove the Pima to a location “either inside or outside of Arizona,” therefore, was hardly unusual.

At the completion of his visit to the villages, Howard urged Stout to persuade Pima headmen to visit the Indian Territory and see for themselves the abundance of water and the absence of “bad white men.” Tell them that the government intends to take all the Indians to the Indian Territory, Howard explained to Stout, “as fast as they get ready to go.” Stout and fourteen Pima and Maricopa chiefs and headmen met in council on May 11 to discuss sending a delegation to the Indian Territory.

The Pima were facing desperate times. Stout informed J.M. Ferris of the Dutch Reformed Church Board of Foreign Missions that the water crisis was so severe that

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some of the Pima were living in their fields “eating their grain in a semi green state.” These circumstances moved Azul, who desired to ensure the welfare of his people. With some facing hunger, Azul told Stout, “If it is as you say we think we would like to live there.” The village chiefs and headmen, however, remained distrustful. “You say this new country is a good place and you say you have not been there, now how do you know it is a good place—if there is plenty of water there?” Azul asked.324

Azul’s comments point to another reality: intense pressure by Stout to persuade the Pima to consent to removal. The Indian Service, as evidenced by Delano’s mathematics and Howard’s attempt to resolve the crisis by removing the Pima rather than dealing with the root causes of water deprivation, searched for an expedient solution. Stout, as the local government representative, was responsible for implementing this policy. Azul for his part consented to listening to any proposal both out of respect and from a position of increased dependency. Pima men and women were demoralized. Desperate conditions required desperate and seemingly ignominious considerations.

Despite their cynicism, the Indians’ agreed to make the trip but only after Stout agreed to three conditions. First, the Pima wished to delay their departure until after the summer harvest but return before the advent of cold weather. Secondly, they demanded that Stout accompany them in order to ensure their safe return to Arizona. Finally, they requested the presence of their longtime friend, interpreter and agency farmer John D. Walker to advise them as to the quality of the land in the Indian Territory. Azul told Stout that when the government was prepared to send a delegation of headmen to the Indian

324 “Report of a Council held by the Chiefs and Headmen of the Pima and Maricopa Indians, at the United States Indian Agency, Gila River Reservation, Arizona Territory, on the 11th of May, 1872,” (Stout Letterbook, AZ 119).
Territory, they would be prepared to go. Nonetheless, Azul told Stout “If the President
could come here, he would see what we need.” The chief preferred to speak directly to
the President and “tell him [what we need] ourselves.”

When three months passed with no word from Washington, the Pima and
Maricopa chiefs again gathered in council and petitioned Stout to lead a delegation to the
Indian Territory.325 “We have not raised enough grain to keep us through the year,” Azul
cried, “and we are afraid we will not raise as much next year.” The chief complained of
unscrupulous traders, such as William Bichard, who introduced whiskey to his people
and abused Pima women through prostitution. Stout immediately urged Indian
Commissioner Francis Walker to initiate removal. “As it is the intention of the
Government to make all of its Indians independent, they should be afforded every
reasonable facility to that end. Walker, aware that American settlers were conspiring to
withhold the flow of the Gila from the Pima, agreed with Stout’s recommendation. But
first he cautioned the Pima would have to be influenced to desire change before any
“authority or appropriations” for removal was sought from Congress.326

Land and water were not the only reasons the government sought removal.
Cloaked in the prevailing humanitarian principles, removal was viewed as a practical
solution to the legal problems besetting the U.S. Government, which continued to
encourage settlement of the land at the expense of the Pima. The federal government had
created a crisis on the Gila River and then proposed a self-serving solution. The social

325 “Report of a Council of the Chiefs and Headmen of the Pima and Maricopa Indians at the Gila River Reservation, Arizona
Territory, held at the Agency building August 27, 1872,” (Stout Letterbook, AZ 119).
326 “Herman Bendell to Frances Walker,” dated Prescott, Arizona Territory, September 11, 1872, RG 75, M734, Roll 8. Bendell told
Walker that Pima water rights were “paramount to every other condition respecting the progress and well-being” of the Indians.” For
Walker’s letter to Delano see “Report of Francis A. Walker to Columbus Delano,” November 1, 1872, Annual Report of the
Commissioner of Indian Affairs, 1872, p. 57.
and political forces of the Indian Service effectively disenfranchised the Pima and reduced them to poverty. The assumption of federal policy makers that Pima poverty was a natural or inevitable response to liberal economic forces is specious. The Pima repeatedly demonstrated a desire and ability to adapt their economy to new forces; all they requested was a level playing field. Pima deprivation and poverty did not result from a natural disposition on the part of the Pima but were a direct response to government policy. The removal policy was simply a symptom of a broader effort to disenfranchise the Pima from the national and local economy.

Some Pima (principally those with families) left the reservation on their own accord to gain an honest living. Others, however, refused to give up their birthright. Lacking water to grow crops, many young Indians who remained on the reservation were idle and fell prey to the whiskey peddler. Prostitution—unknown among the tribe just a decade earlier—rivaled the effects of alcohol. Stout believed that these evils arose out of “a poverty not known within the last few years.” Political expediency called for a single solution: removal “beyond the reach of these contaminating influences.”

Meanwhile, some Pima discovered their own solution to the water issue. Beginning in 1870, a number of Pima settled in the Blackwater district, south and east of the reservation where an alluvial spring provided water when the surface flow of the Gila diminished or disappeared. Movement away from the Gila River—and traditional villages—to areas where seepage water was available continued with the settlement of Gila Crossing in 1873 and Maricopa Colony in 1887 (the latter two sites were added to

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the reservation by executive order in 1879). During the summer of 1873, 300 Pima and Maricopa moved to the Salt River Valley and settled on what later became the Salt River Reservation. By August of that year, 1,300 Indians were residing off the reservation.

Local settlers greeted each successive move off the reservation with a chorus of protest. In 1873, residents complained that whiskey made the Pima “troublesome and dangerous neighbors,” that the reservation could not support the Indians and that the Pima were constantly at war with the Apaches. A decade earlier, the Pima were praised for their military maneuvers against the Apache; now they were condemned. Settlers demanded immediate removal of the Pima. Disavowing any “selfish motives,” the settlers pointed out that the reservation lands were among the poorest in the territory and “would not be occupied for years to come if the Indians were removed.” The *Arizona Weekly Citizen* ominously warned that if the Indians continued to bother settlers, they would have to “do it over their dead bodies.”

In 1873, the Board of Indian Commissioners joined other officials favoring relocation of the Pima and Maricopa. That summer, Commissioner Smith authorized Stout to take a delegation to inspect the Indian Territory. “Much interest has been shown by the Indians in the question of their removal,” Stout reported. The Pima had, in fact, frequently debated the proposition over the winter. Antonio Azul eloquently expressed their dilemma when he asked Stout: “If we cannot go to the Salt River Valley (to grow

331 *Arizona Weekly Citizen*, October 26, 1872 (3:3).
332 *Annual Report of the Board of Indian Commissioners, 1873*, p. 57.
crops) then what? We have no food and you cannot feed us.” Nonetheless, Stout persisted. If the Pima were satisfied with the appearance of the territory and if favorable terms of removal could be agreed upon, would they prepare to emigrate? Several factors continued to influence the Pima: inadequate rainfall (just 4.86 inches of precipitation fell during fiscal year 1873), continued upstream diversion of water and cries of hunger from Pima children.

Although Stout sought to take a delegation to the Indian Territory that spring, he was denied permission due to insufficient funding. When Delano approved funding in June, Smith authorized Stout to take five Pima and Maricopa headmen, rather than the fourteen the Indians requested. Anticipating an early August departure—and arrival in the Indian Territory during “its grain producing condition,” rather than when it was cold and barren—Stout and the Indians were again disappointed when the necessary funds for the trip were not available until mid-September.

On September 23, 1873, Stout accompanied John D. Walker and a delegation of five Pima and Maricopa leaders, including Azul, to the Indian Territory. There the group “prospected” a new reservation west of the Iowa and Sac and Fox agencies in central Indian Territory (see map 9).

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334 “John Stout to Oliver O. Howard,” dated Gila River Reservation, March 17, 1873, (Stout Letterbook, AZ 119). Stout noted that he had secured the return of all the Indians to the reservation and that the Salt River Valley settlers had in no uncertain terms informed him that no more Indians would be allowed in the valley.

335 The 1873 Annual Report of the Commissioner of Indian Affairs (p. 281) noted that the “settlers living above this reserve on the Gila River are all complaining of the lack of water.” The Arizona Weekly Citizen also reported inadequate rainfall had harmed non-Indian fields (November 3, 1873, 4:4). Nonetheless, Pima and Maricopa farmers were facing near starvation on some parts of the reservation, particularly the western end.

336 “John Stout to E.P. Smith,” dated Gila River Reservation, July 1, 1873, (Stout Letterbook, AZ 119). Stout estimated the cost of transporting fourteen delegates at $9,500, an amount rejected as much too high by Delano and Smith. The secretary approved of the trip after Smith convinced Delano that it would be wise to take one third of the tribe now and the remainder in a few years, at which time the reservation could be sold and the proceeds used to defray the cost of removal. “E.P. Smith to Columbus Delano,” dated Washington, D.C., June 4, 1873, RG 75, M348, Roll 23.

337 The delegation went to the Indian Territory by way of San Francisco, meeting Kansas Superintendent Enoch Hoag in Lawrence. Hoag suggested that the delegation prospect west of the Sac and Fox Agency in the “unoccupied lands” of western Indian Territory.
visit, and entirely satisfied with the appearance of the country.” After selecting a “suitable reservation” the delegates returned to Arizona. Back home the following year, Stout reported that removal “had not been as generally discussed by the two tribes as would be supposed.” Abundant rainfall that winter dampened the Indians’ enthusiasm for abandoning their homeland. 338 Flooding that winter destroyed much of the Pima’s small grain crop, compounding the situation. 339

Map 9: Proposed Removal to the Indian Territory

In 1873, the Pima visited the unassigned lands just west of the Iowa and Sac and Fox agencies.

(Source: Oklahoma Genealogy and History, 2006)

Many tribal members objected to removal on the grounds that the Indian Territory was too cold and distant from their present home. Tribal elders were concerned that the new country might be unhealthy or that they might die en route; removal would also

On the return trip, the delegation returned to Lawrence and then took the Kansas and Pacific Railroad to Denver, where upon they commenced travel on horse back to the Pima Reservation. “John Stout to E.P. Smith,” dated Gila River Reservation, September 9, 1874, (Stout Letterbook, AZ 119).

338 “John Stout to E.P. Smith,” dated Gila River Reservation, May 12, 1874, (Stout Letterbook, AZ 119).

mean living among strangers, far from their burial and traditional grounds. These sites interwove the sacred nature of the spiritual landscape with the Pima conception of the cosmos, which was central in determining the physical and spiritual health of the people. This was especially reflected in the sacred mountains surrounding the villages, which aided the Pima in maintaining proper health, reinforcing a unique Pima identity and providing them with sense of place anchored in the land.\footnote{Russell, The Pima Indians, pp. 206-208; Donald M. Bahr, Juan Gregorio, David I. Lopez and Albert Alvarez, Piman Shamanism and Staying Sickness (Tucson: University of Arizona Press, 1974), p. 43.} Younger men, influenced by the stories of the traders, feared that they would either freeze to death or be killed by hostile neighbors. More alarming, were concerns that once the Pima and Maricopa had given up their reservation in Arizona, the government would renege on its promise of land in the Indian Territory. Stout remained optimistic. “Should the Department continue its offer of removal,” he informed Smith, “I believe that some of the Indians will go next year, and that that number will be augmented from time to time, until the entire tribes have been removed.”\footnote{“John Stout to Edward P. Smith,” Annual Report of the Commissioner of Indian Affairs, 1874, p. 294. “John Stout to Edward P. Smith,” Annual Report of the Commissioner of Indian Affairs, 1875, p. 214. Stout estimated the costs of removal and subsistence for one year at $100 per capita. “John Stout to E.P. Smith,” dated May 12, 1874, RG 75, M234, Roll 9}

Despite Stout’s optimism, the \textit{San Francisco Bulletin} and the \textit{Arizona Weekly Citizen} both dismissed the prospect of removal.\footnote{Both publications were antagonistic to the Grant administration and Peace Policy; they largely reflected the views of the Indian traders and departmental provisions contractors. 342} The \textit{Bulletin} reported on December 30, 1873, that the members of the Pima and Maricopa delegation had declared their present reservation “far preferable to any which they visited during their trip.”\footnote{Reprinted in the \textit{Arizona Weekly Citizen} January 10, 1874, (4:14).} The \textit{Citizen} likewise speculated that the Pima were unlikely to consent to the move.\footnote{\textit{Arizona Weekly Citizen}, dated Tucson, Pima County, January 3, 1874, (4:13). The \textit{Citizen} exaggerated the costs of the trip by reporting the expense to be $50,000, with stops in New York and other prominent eastern cities (November 4, 1873, 3:52).}  

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344 \textit{Arizona Weekly Citizen}, dated Tucson, Pima County, January 3, 1874, (4:13). The \textit{Citizen} exaggerated the costs of the trip by reporting the expense to be $50,000, with stops in New York and other prominent eastern cities (November 4, 1873, 3:52).
Notwithstanding Stout’s assertion that some Indians were willing to emigrate, Commissioner Smith notified Delano that he had been unable to secure the consent of the tribe—“or any portion of it”—to remove to the Indian Territory. He went on to point out that previous removals had been effected through compulsion or affected only those tribes residing in states bordering the Indian Territory. Since the Indian Service contemplated the voluntary removal of all tribes—indeed, it was in the process of removing the Pawnees from Nebraska and seeking the consent of the Arikarees from Dakota Territory—Smith was concerned that the consent of the tribes would not be secured. He feared that “the prospect of inducing any large number of Indians (to) voluntarily ... settle in the Indian Territory is not encouraging, and cannot safely be made the basis of any general plan for future relief or civilization of Indians.”

The winter of 1873-1874 witnessed a three-fold increase in precipitation over the previous year (fiscal year 1874 brought 16.83 inches versus 4.86 inches in fiscal 1873). With the abundance of rain, many of the Pima who had left the reservation seeking employment or relocated to the Salt River returned to tend to their crops. The fall harvest produced 50,000 bushels (3,000,000 pounds) of wheat, 4,000 bushels (240,000 pounds) of barley and 500 bushels (30,000 pounds) of corn. With the sudden return of prosperity, the Pima lost interest in abandoning their farms along the Gila.

Smith then proposed that the Interior Department either recognize Pima water rights or remove them to the Colorado River Indian Reservation, the latter of which was

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346 “Stout to E.P. Smith,” May 12, 1874, RG 75, M234, Roll 9. Stout also added that the abundance of rain had caused the river to rise so high that a ferry was necessary to cross it. The raging river also destroyed much of the Indians’ crop.
endorsed by Territorial Governor Safford. “This latter course is deemed entirely practical,” Smith informed Delano, “if consent of the Indians can be obtained, and such legislation can be procured as will secure a fair compensation for their present reservation and afford the means necessary to establish them comfortably on the Colorado River reserve.”

The Pima water supply continued to be sufficient until the summer of 1875. In June, the river failed and by the end of the month it slowed to a trickle and on the west end of the reservation had gone dry. More ominously, the recent discovery of high grade copper east of the reservation increased the diversion of water from the river system. It would be only a matter of time, Stout warned Smith, before “the greater portion of the water of that stream will be used up by the whites, and the Indians will become dependent on the Government for support.” In Smith’s view, rather than adopting the moral position of protecting Pima water by enforcing their rights, the mineral discoveries upstream compounded the urgency of removal.

Diminished rainfall beginning in the summer of 1875 continued through 1883, adding to the hardships. By 1876, over 200 Indian families were living in the Blackwater district above the reservation. In May, reports of crop failures across the reservation lead to discussions of administratively adding the Blackwater lands to the reservation as the “easiest solution of the vexed question of ‘water supply’.” Agent Charles Hudson believed the measure would be necessary only “until these Indians form a more

350 “Edward P. Smith to Columbus Delano,” ibid., p. 79.
intelligent view of what is for their real good, and may be induced to consent to removal." In August, a Presidential executive order attached the 9,000 acre Blackwater district to the reservation protecting the head of the Little Gila River and the Blackwater spring.

Despite meager precipitation and increased diversions, the Pima cultivated “an excellent article of wheat” on 7,000 to 8,000 acres of land. The summer of 1877, however, turned into one of the warmest and driest in decades. Writing in August, Stout lamented to commissioner Ezra Hayt that it was already too late for rain to help summer crops. “What has been planted has already dried up,” he observed, “and the Indians will make no further attempt this season.” With the near complete failure of summer crops, Pima grain sales ended. As the drought worsened, Stout sought permission to take twelve or fifteen of the “best practical farmers” among the Pima and examine the Colorado River Reservation.

The exodus from the reservation increased as the drought and water crisis deepened. By 1877, 500 Pima were supporting themselves on “good land and plenty of water” in the Salt River Valley. Alarmed residents petitioned the Indian Office and Congress to remove the Indians to the Gila River reservation. When Hayt urged Stout to comply, the agent objected that to do so would cause “great suffering.” Instead, Stout asked to settle the off reservation Indians on unclaimed public land under the provisions

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352 “John Q. Smith to Columbus Delano,” Annual Report of the Commissioner of Indian Affairs, 1877, p. 236. The 1876 Executive Order did nothing for the Maricopa, leading Captain Juan Cheveria to remove his village—Bone Standing Village—to an area on the Salt River, five miles upstream from its junction with the Gila. The new site was well off the 1859 reservation.
of an 1875 law that applied to Indians who abandoned their tribal relationship. Doing so, Stout asserted, would protect them in their property rights. When the winter rains failed again in 1878, less than one-quarter of the Pima’s fields was irrigated, with no harvest projected below Sacaton. Most of the Pima crowded onto the eastern end of the reservation where some water was available and the rest sought Stout’s permission to move to the Salt River Valley, where they promised to cause no trouble.

Stout informed Hayt that unless the Indian Office allowed the move, it would have to feed between 1,000 and 1,500 Indians—at a cost of approximately $25,000. The Pima, however, wished to remain self-sufficient, as evidenced by their movements off the reservation where they took up irrigable lands to cultivate. Their consolidation on the east end of the reservation further illustrated their desire to maintain an agrarian economy. Stout acknowledged this in a letter to Hayt. “The Indians do not wish to become dependent. If they are but given a chance,” Stout stressed, they would remain self-sufficient.

Ezra Hayt’s appointment as Commissioner of Indian Affairs in the administration of Rutherford B. Hayes infused new life into the removal issue. The commissioner urged the immediate removal of all tribes from Colorado and Arizona. “The government has been paying between eight and ten cents per pound for the transportation of flour and other necessaries to feed the Indians,” Hayt noted, “and the total cost of maintaining the Indian tribes of Arizona for the past three years has been $1,084,000.” Furthermore, Hayt viewed the Indians as “uneasy and restless” and “constantly moving about,” on and off

355 “John Stout to Ezra Hayt,” dated Pima Agency, December 21, 1877, RG 75, M234, Roll 19. Stout estimated it would cost between four and five thousand dollars to settle the land issues in the Salt River Valley.
The government’s objective was two-fold. By consolidating tribes in the Indian Territory, Hayt could reduce the number of agencies and the expense of maintaining the Indians. Furthermore, removal and consolidation would also “protect” the Indians’ personal and property rights. Moreover, the sale of vacated lands would defray the costs of removal, with enough left over to relieve Congress of “direct appropriations” for the Indians’ future support. As a start, Hayt drafted a bill to remove the northern tribes to the Indian Territory and sent it to the House Committee on Indian Affairs.

The commissioner also urged Interior Secretary Carl Schurz to submit to Congress a bill for the removal of the Arizona, Colorado and New Mexico tribes. Hayt estimated the cost of removal at $25,000—$5,000 of which would be used to purchase agricultural implements. The proposal gained momentum when the Territorial Assembly memorialized Congress to compel the Pima to “be removed from said Salt River” and returned to their reservation on the Gila, where they should be “forced to remain.”

Figure 5:2. Many Pima moved into the Salt River Valley to irrigate their lands with the waters of the Salt River. Courtesy of Arizona Historical Society.
In March of 1878, Hayt dispatched Indian Inspector E. C. Watkins to the Pima Reservation to make recommendations. Now facing the pangs of hunger, the Pima did not ask for handouts and watched the unfolding crisis with “despondent hearts.” “They have never been fed by the Government and do not ask for it. But they do ask ‘How are we to maintain our families’?” Many Pima men had taken up wage labor in Phoenix or Florence while others worked in the mines or on ranches, where they were praised for their “willingness and capacity for labor.” Watkins concluded that “to insist upon a strict enforcement of the policy of the government by confining these Indians to their reservations, would, under existing circumstances, be an act of inhumanity, unless they were furnished regularly with rations.”

That same month, Stout convened another council to obtain Pima and Maricopa consent to immediate removal. With almost half of the estimated 5,000 Indians residing off the reservation due to insufficient water resources, the agent believed the time had come for a solution to the water crisis. “Their only hope of salvation from a speedy extinction,” Stout argued, “lies in their early exodus to the Indian Territory.” Still the Indians hesitated. Several suggested that two or three tribal citizens should be sent ahead to “prospect” the land, a request Stout was inclined to grant. The visit would be “timely and reasonable” and, in view of the growing crisis, the agent urged the government to take every practical step to bring about the removal. Hayt agreed and approved of the
visit, pending a special appropriation by Congress.\textsuperscript{364}

Although many Pima were prepared to remove, Stout recognized that they would not “take kindly to the thought of leaving their old homes and haunts, and a climate to which they have become so thoroughly accustomed.”\textsuperscript{365} Moreover, some of the Indians occupied considerable tracts of land in the Salt River Valley where Stout recommended them allotting land in severalty until such a time as removal could be carried out. “They are in danger of losing [their farms],” he reminded Hayt, “for as these lands become valuable by cultivation, they are coveted by the white man.” If the government protected their homesteads, Stout believed the Pima “could maintain their independence until such a time as they could be removed.”\textsuperscript{366}

By the summer of 1878, the western half of the reservation was dry, with no crops raised. “If the white settlements east of this reserve increase in the next few years as they have in the past,” Stout wrote to Hayt, “it (the reservation) will never again support the Indians.” More Pima left the reservation so “that they might not hear their women and children cry for bread.”\textsuperscript{367} As a short-term solution, Stout suggested the government set aside a reservation—“temporary or otherwise”—in the Salt River Valley. The “Indians have some rights,” he reminded Hayt, “and morally if not legally, they have a right to be where they are.”\textsuperscript{368}

In this context the U.S. Army intervened on behalf of the Pima and Maricopa.

\textsuperscript{364} Hayt consented to Stout’s taking of a delegation on March 25, 1878. Apparently Stout was not informed because on May 2 he wrote a second letter seeking permission to transport the delegation.

\textsuperscript{365} “John Stout to Ezra Hayt,” Annual Report of the Commissioner of Indian Affairs, 1877, p. 32.

\textsuperscript{366} “John Stout to Ezra Hayt,” Ibid. 1878, p. 5. See also “John Stout to Ezra Hayt,” dated June 28, 1877, RG 75, M234, Roll 19.

\textsuperscript{367} “John Stout to Ezra Hayt,” dated Pima Agency, Arizona, August 15, 1878, Annual Report of the Commissioner of Indian Affairs, 1878, p. 3.

\textsuperscript{368} “John Stout to Ezra Hayt,” dated November 28, 1878, RG 75, M234, Roll 19.
Major General Irvin McDowell, having commanded Pima and Maricopa troops a decade earlier, informed the Adjutant General of the Army that the Indians had always “been our true steadfast friends.” They had served as scouts against the Apaches, protected the overland mail routes and provided the food stores upon which the military and emigrants depended for many years. But now settlers above the reservation who knew little of their deeds had deprived them of their water. “If they have done anything wrong to any whites,” McDowell explained, “I am confident they must have been driven to it by great want.” Secretary of War George McCrary responded by instructing General of the Army William Tecumseh Sherman to investigate Pima conditions. Sherman in turn ordered McDowell, commanding the Military Division of the Pacific, to protect the Pima “against violent actions on the part of the settlers.”

The task of investigating the crisis fell upon the shoulders of Captain Adna R. Chaffee, stationed at Camp McDowell. While acknowledging that the Pima wantonly traveled in the Salt River Valley, Chaffee learned that settlers were planning to seize improved lands from the Indians—complete with canals and crops. This “is nothing more nor less than a legal steal,” the captain reported. While the Pima were entitled to homestead on public lands, they were ignorant of filing entries on the land. This encouraged unscrupulous settlers to evict them from improved lands, some of which had been cultivated for many years. While some “squatters” were forcibly evicted by armed Pima men protecting their property, others managed to take legal possession of the land. Still others coordinated with local officials, perpetrating a “great crime towards the

369 “Irvin McDowell to Adjutant General,” dated Department of California, San Francisco, California, June 24, 1878, in RG 75, M234, Roll 22.
Pima.” More than 1,000 Pima lived north of the Salt River, harvesting more than 300,000 pounds of wheat in 1878. On the south bank of the Salt near the Mormon village of Lehi were twenty-eight Maricopa families cultivating the soil. Chaffee recommended 1,520 acres be set aside as a reservation for these Indians. An additional fifty-one Maricopa families lived twelve miles downstream above the confluence of the Salt and Gila Rivers, where they cultivated 300 acres.371

On December 3, 1878, Colonel Orlando B. Willcox of Camp McDowell forwarded Chaffee’s report to McDowell, adding that the deprivation of the Pima and Maricopa was a direct result of “the Government which threw open the upper Gila for settlement.” The Pima, Willcox further explained, “were fairly and legally entitled to the water and the diversion of it [by settlers] constitutes an act, which if done [against] citizens, would be contrary to law.” In the colonel’s view, the United States had to either restore the water to the Pima or provide them with comparable arable land and water. Furthermore, to remove the Indians, as the Indian Service contemplated, was immoral. “Have we a right to transplant them against their wishes?” Without water the Pima could not be “useful members of the community” and would become “vagabonds to starve or fight.”372 The only solution was to halt all sale of public land in the Salt River Valley and set some portion of it aside as a reservation for the Pima and Maricopa.

A day later, Willcox telegraphed McDowell regarding the territorial water case of Kelsey v. McAteer. McDowell immediately forwarded the message to Sherman in

371 “Adna R. Chaffee to the Assistant Adjutant General,” dated Headquarters, Department of Arizona, Prescott Barracks, Camp McDowell, Arizona Territory, November 24, 1878, RG 94, M666, Roll 403, Letters Received, 1871-1880, pp. 3-8.
Washington, D.C., adding that, according to the territorial court, the “diversion of water above prior settlements [is] illegal.” The deprivation of the Pima therefore was illegal. “All public lands on the Salt River [should] be withheld from entry, sale, pre-emption or homestead,” McDowell pleaded. To quiet the tension, McDowell asked Sherman for an immediate answer as to how to proceed. Territorial Governor John C. Frémont concurred with McDowell’s assessment.373

While McDowell initially took the perspective that restoring water to the Pima was impractical because it would lead to a series of long drawn-out lawsuits, he had a change of heart later that same day. In a second telegram to Sherman, the Commanding General explained, “It may be inconvenient and cause delay as do all appearances to courts, but it would be an outrage to suffer them to be deprived of their rights.” The Pima had to be restored in their rights to all that they were “lawfully and equitably entitled to.”374 The United States opened the territory above the Pima Reservation for settlement, McDowell wrote in a report to Sherman, and in the process it deprived the Indians of “their water for their farms by Act of Government.” But while it sold the land, the government did not sell the water which the Pima “had hitherto used for their lands, for it did not belong to the Government to sell.” In a clear declaration of the matter, McDowell pointedly reminded Sherman that the Pima retained “a right and use [of the water] which [they] had when they came within the limits of the United States, and which they have not lost.” In short, the Pima had illegally and wrongfully been deprived of their water and

373 “Irvin McDowell to General William T. Sherman,” dated Headquarters Military Division of the Pacific and Department of California, Presidio of San Francisco, December 4, 1878, RG 94, M666, Roll 403.
374 “Irvin McDowell to General William T. Sherman, Washington, DC (referring to telegram sent this morning)” dated Headquarters Military Division of the Pacific and Department of California, Presidio of San Francisco, December 4, 1878, RG 94, M666, Roll 403.
the United States was obligated to restore it. Sherman’s reply was succinct: “Can you immediately support the manner in which the water can be turned back onto the reservation as appears right and just to the Indians without conflict with the whites, or without a long lawsuit?”

Two days before Christmas, McDowell again replied to Sherman, asking him to speak with the President regarding the protection of Pima land and water. “These Indians have been driven from their lands on the Gila,” McDowell told Sherman, and according to the laws “on this coast and in Arizona [this is] illegal.” Now called “renegades” and “savage intruders,” the Pima must “steal or labor for their subsistence where … they can gain it. The United States should at once take measures by injunction or otherwise to restore to these Indians the rights to water to which they are entitled.”

Sherman replied to McDowell, informing him that he had forwarded his letter to the Secretary of the Interior, who promised a decision on the matter before end of January. “It seems he has had some plan of inducing these Indians to remove to the Indian Territory,” Sherman explained. McDowell then immediately appealed for justice. “We have no more right to deport them than we have to send farmers from the Connecticut Valley to Arizona.” The government proposed to civilize the Indians, McDowell argued. “Well these Indians have long since taken the first giant step.”

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375 “Irvin McDowell to the Adjutant General of the United States Army,” dated Headquarters Military Division of the Pacific and Department of California, Presidio of San Francisco, California, December 26, 1878, RG 95, M666, Roll 403.
376 “William T. Sherman to Irvin McDowell,” dated December 5, 1878, RG 94, M666, Roll 403.
377 “Irvin McDowell to General Sherman,” dated Presidio of San Francisco, California, December 23, 1878, RG 95, M666, Roll 403.
378 “Irvin McDowell to William T. Sherman,” dated San Francisco, California, December 23, 1878, RG 75, M234, Roll 20. McDowell urged recognition of Pima water rights because the deprivation experienced by the Indians was through “no act of their own” but the result of upstream settlement.
379 “Irvin McDowell to the Adjutant General of the United States Army,” dated Headquarters Military Division of the Pacific and Department of California, Presidio of San Francisco, California, December 26, 1878, RG 95, M666, Roll 403.
McDowell persuasively argued his point and in January 1879, President Hayes halted the sale of public land in the Salt River Valley and, via executive order, added the unsold portions to the Pima Reservation. The expanded reservation extended east two miles on either bank of the Salt River from its junction with the Gila to the western boundary of the White Mountain Apache Reservation, over 100 miles to the east and encompassing the towns of Phoenix, Tempe and Hayden’s Ferry. Governor John C. Frémont publicly joined the territorial assembly in protesting the action and called on Secretary Schurz to return the land to the public domain. The territorial legislature appropriated funds to send the governor and Arizona Supreme Court Justice Charles Silent to Washington, D.C., to persuade the President to rescind his order.

At the start of 1879 the Salt River Valley stood on the verge of an agricultural explosion. The Southern Pacific Railroad had reached thirty miles east of Yuma and would reach Maricopa Junction by April. New lands were being developed and prospects for expansion seemed unlimited. In February the Phoenix Herald sounded the alarm bell: with the new reservation, the Herald hyperbolized, settlers would be disenfranchised and liquor sales prohibited within the limits of the newly expanded reservation. Even Captain Chaffee feared too much land had been reserved. “The Indians will gain nothing by holding sections, half sections, etc., of land here and there, surrounded on every side by white settlers.” Fearful the land would remain “a barren waste,” the captain warned

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381 “John C. Frémont to Carl Schurz,” dated Territory of Arizona, Executive Department, Prescott, February 6, 1879, RG 75, M234, Roll 21.
382 “Letter from Governor Frémont to Secretary Schurz,” dated Executive Department, Prescott, January 25, 1879, RG 48, M576, Roll 19.
383 Phoenix Herald, dated February 3, 1879.
“one title or the other must be extinguished, for the present, I assume, the settlers must be ousted.”

Governor Frémont continued to argue removal, opining “that the whole Salt River Valley and the Gila River should be left to the white people, and the Indians withdrawn to the Colorado River.”

In April, McDowell publicly responded to Frémont. “This proposition appears to me to bid no good to the peace of Arizona, and will, if consummated, no matter how, inflict, I believe a great wrong upon a peaceful, most friendly, hard working, self-supporting people.” Depriving them of their water, McDowell argued, “was illegal.”

Quoting from the McAteer decision, McDowell was adamant: “The fact that the appropriator does not irrigate all of his arable land during the first years following the appropriation does not affect his right.” Upstream appropriation of Pima water did not affect their rights to it.

Interior Secretary Carl Schurz was clear but indifferent in response: “The Indians must be permitted to subsist themselves—there is no appropriation for their support.”

Bowing to political pressure, Hayes backed off and issued a new executive order that expanded the reservation northwest along the Gila River to its junction with the Salt River and then four miles up the Salt. This more modest addition included the Maricopa village of Sacate on the Gila River and Maricopa Colony on the Salt River. Hayes also

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384 “Captain Adna Chaffee, Report to Assistant Adjutant General,” dated Headquarters, Department of Arizona, Prescott Barracks, February 7, 1879, RG 94, M666, Roll 403. Chaffee’s report noted the extended reservation in the Salt River Valley encompassed 656,000 acres and with 4,500 Pima and Maricopa this equaled 145 acres per capita. As they farm “an average of 5 acres per man,” Chaffee opined there was too much land reserved for the Indians. Of course, non-Indians could either homestead 160 acres or claim 640 acres under the Desert Land Act of 1877.

385 “John C. Frémont to Colonel Orlando Willcox,” dated St. Charles Hotel, Los Angeles, California, March 1, 1879, in Irvin McDowell, Report to the Adjutant General, U.S. Army, Headquarters Military Division of the Pacific and Department of California, Presidio of San Francisco, California, RG 94, M666, Roll 403.

386 Irvin McDowell, Report to the Adjutant General, U.S. Army, Headquarters Military Division of the Pacific and Department of California, Presidio of San Francisco, California, RG 94, M666, Roll 403, pp. 1-4.
designated a separate, non-contiguous reservation on the Salt River south of Camp McDowell, encompassing the present-day Salt River Pima-Maricopa Reservation.

Despite additional land, the Pima continued to suffer from a shortage of water. In the summer of 1879, Indian Inspector William Hammond reported the Gila was dry and dusty. “[E]ven the increased Reservation will not prevent suffering because the laws of the Territory give the water to the oldest ditch. There is no water for the old Indian ditches.”387 Despite McDowell’s plea for justice, Pima water rights remained in jeopardy and Damoclean sword was raised over the heads of Arizona officials.

Congress, meanwhile, continued debating the removal of the Southwestern tribes.388 In December of 1878, Congressman James Throckmorton (D-TX) introduced an amendment to the Indian appropriation bill to prohibit the removal of any tribes from Arizona and New Mexico.389 The amendment passed by a vote of seventy-one to sixty and in February the bill became law.390 Three years later, President Chester A. Arthur added lands south and west of the Gila River to the Pima Reservation. The following year, he issued another executive order, doubling the size of the reservation from 180,000 to 360,000 acres. However well-intentioned, the government’s belated actions failed to address the longstanding concerns of the Pima. It was water more than land the Indians needed.391

388 The bill was attached to the 1880 Indian Appropriation Act and called for “Collecting and subsisting Apaches and other Indians of Arizona and New Mexico: For this amount, to subsist and properly care for the Apache and other Indians of Arizona and New Mexico who have been or may be collected on reservations in New Mexico and Arizona, $320,000.” See “House Debate on Removal of Southwest Indians,” December 19, 1878, Congressional Record (45th Congress, 3rd Session), pp. 311-325.
389 Ibid., p. 311. The Indian Service had removed a number of tribes to the Indian Territory without Congressional approval, i.e. the Modocs and Nez Perce in 1877. The Indian Service also sought the removal of the Sioux in 1877.
390 20 stat 313. The bill was enacted into law on February 17, 1879.
391 In January of 1886, Senator Bowen submitted a resolution to the full Senate urging the Committee on Indian Affairs to “inquire into the expediency of removing all the Indians in the United States to the Indian Territory.” No action was taken on the resolution. Senate Miscellaneous Document 32, 49th Congress, 1st Session.
Federal land and resource policies after 1877 required non-Indian settlers to utilize the water of the Gila River or risk losing their land. In the following chapter, I consider the effects of these policies on the Pima and how they ushered in the years of starvation. Attempting to remain self-sufficient, the Pima resorted to cutting and selling mesquite for the purpose of providing for their families. While individual families still maintained fields and each village still operated irrigation ditches, there was no water with which to irrigate. Pima farmers continued to reject charity. While Upper Gila Valley diversions continued, the death knell of the Pima was the completion of the Florence Canal. The latter decades of the nineteenth century proved to be even more challenging to the Pima. Government neglect of their water rights grew more pronounced. The Pima were headed towards the years of starvation.
CHAPTER 6

“SUBSISTENCE OR SUFFER”
FAMINE AND STARVATION, 1880-1904

By 1880, the surface flow of the Gila River was insufficient for Pima agriculture, with many Pima families lacking even domestic water. As a result, half of the Indians moved off the reservation to work in order “that they might not hear their women and children cry for bread.” Indian Agent A. B. Ludlam reported in 1880 that for the first time the U.S. Government purchased wheat for “destitute Indians.”  

Sixty-seven year old Pima elder Chir-Purtke reflected on these difficulties, noting the Pima were unable “to irrigate all our fields. We were forced to abandon them little by little, until … we were left high and dry.” The Pima had “ample lands” but lacked water. Despite their understanding of agriculture and hydrology, the water crisis, Pima elder William Wallace murmured, was destroying “our pride as independent and self-supporting people.”

The Pima dealt with a variety of challenges in the latter years of the nineteenth century, including dishonest agents, scandalous traders, and political feuds between federal employees and missionaries. Foremost among these challenges were trespassers “who refuse[d] the Indians the use of water.” Agent Claude Johnson opined that

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395 For trespassers see “Gardner to Teller dated March 3, 1885,” 2, in Reports of Inspectors, Roll 35. For dishonest agents and scandalous traders see “William Junkin, United States Indian Inspector, to John Noble, Secretary of the Interior, dated Pima Agency, September 30, 1890,” p. 2 in Reports of Inspections, Roll 36. For a discussion of the friction between federal Indian agents and Presbyterian missionary Charles Cook see “Report of R. Pearsons on Pima Agency Investigation of Charges against Agent Wheeler,
“considering the vast surrender of national wealth made by these Indians … the best aid that can be given to [them] … is the extension of their irrigation facilities.” 396 Johnson asked that an engineer evaluate the prospects for an irrigation system for the Pima.

Table 2: Percentage Use of Gila River Natural and Flood Water Flow, Select Years 1866-1918*

<table>
<thead>
<tr>
<th>Year</th>
<th>Pima Reservation#</th>
<th>Florence-Casa Grande</th>
<th>Safford/Solomonville</th>
</tr>
</thead>
<tbody>
<tr>
<td>1866</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1878</td>
<td>73.60</td>
<td>11.23</td>
<td>13.57</td>
</tr>
<tr>
<td>1892</td>
<td>48.27</td>
<td>9.79</td>
<td>35.38</td>
</tr>
<tr>
<td>1901</td>
<td>42.69</td>
<td>10.90</td>
<td>36.56</td>
</tr>
<tr>
<td>1910</td>
<td>37.99</td>
<td>10.50</td>
<td>41.30</td>
</tr>
<tr>
<td>1914</td>
<td>36.38</td>
<td>13.00</td>
<td>40.71</td>
</tr>
<tr>
<td>1918</td>
<td>29.50</td>
<td>28.64</td>
<td>33.62</td>
</tr>
</tbody>
</table>

# Percentage calculated by default after Florence–Casa Grande, Safford-Solomonville and other smaller users subtracted. This amount represents total available flow (natural and flood) not the amount that actually reached the reservation boundary.

* Percentages do not total 100% as smaller users omitted

(Source: “Gila River Priority Analysis, Water Distribution Chart # 3,” United States Indian Service, Irrigation, January 20, 1926)

By the turn of the century, Agency Superintendent John B. Alexander echoed the concerns heard so often before. “The reservation contains good irrigable lands but lacks the chief essential—water.” 397 One of the reasons for the lack of water was the construction of the Florence Canal in 1886, which diverted nearly all the remaining surface flow of the Gila River above the reservation (see map 11). Upper Valley users in Safford and Solomonville placed increasingly high demands on the waters of the river, as shown in table 2. 398


396 Annual Report of the Commissioner of Indian Affairs, 1888, pp. 4-5.
398 See, for example, Annual Report of the Board of Indian Commissioners, 1897 (Washington, DC: GPO, 1897), p. 11. “Walter Graves, United States Indian Inspector, to Ethan Allen Hitchcock, Secretary of the Interior, dated Pima Indian Reservation, Arizona, September 8, 1900,” in Reports of Inspections, Roll 35.
Inspector Robert Gardner informed Interior Secretary Henry Teller in 1886 the Florence Canal “should not be built [to] benefit a few speculators to the loss and detriment of four or five thousand Indians.” Teller then asked the U.S. Geological Survey (USGS) to evaluate the situation, with the USGS concluding “if the agriculture of the Indians now on the reservation is to have normal growth (the) greater part, and perhaps the whole of the waters of the Gila will be necessary therefore.” The federal agency admitted “the construction of a dam by the Florence Canal Company … will give the control substantially of all the water of the Gila River [to the canal company] and if the owners of the dam carry the water right also, they can deliver the water to the reservation or not, as best suits their plans.” If the waters of the Gila River were cut off, Pima lands “would become uninhabitable.”

The USGS recognized the Pima needed more water. The Florence Canal Company, fearful of being denied a right to divert water, promised it would not diminish the amount of water currently used by the Indians. Both the USGS and the U.S. Attorney

399 The canal, which was twenty-six feet wide at the bottom, “may lessen the quantity of water heretofore required by the Indians for their use; and in the event of such an happening the Indians would consider themselves sorely aggrieved and serious trouble might arise.” “Robert S. Gardner, United States Indian Inspector, to H.M. Teller, Secretary of the Interior, dated Pima and Maricopa Agency, September 2, 1886,” p. 1, in Reports of Inspections, Roll 35 and “Franklin Armstrong, United States Indian Inspector, to Lucius Q.C. Lamar, Secretary of the Interior, dated Pima Agency, February 26, 1887,” 1, in Reports of Inspections, Roll 35.

agreed to this but did not quantify the area farmed or the amount of water used. Without this data, it was impossible to determine Pima water rights. In the meantime, the USGS admitted the natural flow of the Gila was “all appropriated now by the white settlers above” the reservation.401

Interior Secretary Lucius Q.C. Lamar asked the U.S. Attorney General to “take such steps under the Federal or Territorial laws as might be necessary to protect the Indians in their rights.” The U.S. District Attorney for Arizona Territory, however, recommended litigation not be brought against the Florence Canal Company until data on acreage and water flow was quantified. Bureaucratic ineptitude delayed the question of data gathering until 1904, and it was another decade before data was actually gathered. Rather than litigating Pima water rights, Superintendent Alexander recommended that the twenty to thirty thousand dollars to prosecute Pima rights was too steep to warrant the effort. Commissioner of Indian Affairs William Jones concurred and notified the Attorney General that the Indian Service would pursue no further legal action.402

A policy of malicious neglect followed. Since the reservation remained in communal ownership, the federal government was in no hurry to protect water rights for the tribe, desiring instead to allot land and appurtenant water rights in severalty. Without an adequate and assured supply of water to irrigate the land and make it productive, however, the reservation could not be allotted. The Indian Service furthermore operated under the theory that reservations—particularly non-treaty reservations such as the Pima

402 Annual Report of the Commissioner of Indian Affairs, 1904, pp. 17-18. See also “Graves to Hitchcock.”
Reservation—would be dissolved within a few years as its lands were divided in severalty. At such point, American Indians would take their place in the American polity as citizens without any special right that may have been encumbered while in tribal status. In the meantime, more farmers in the upper valleys—encouraged to acquire public domain lands under the Desert Land Act and required to make them productive with the waters of the Gila River—diverted additional water, increasing their take of the river from 13.57% to 41.3% of the flow between 1878 and 1910. The Pima were on the brink of social and economic displacement, seeing their share of river water decline 62% between 1866 and 1910. Scores of Pima farms were abandoned. Others were “only partially cultivated, yielding scant and uncertain returns.” Pima farmer George Pablo bemoaned how some of the Pima “had to leave our farms and move up the river” where seepage water was available.

To the north of the reservation, settlers in the Salt River Valley organized the Salt River Valley Water Storage Committee to resolve water rights conflicts, identify potential dam sites and lobby Congress. In 1901, the Maricopa County Board of Water Storage Commissioners was established to identify ways of floating county bonds to

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403 “Graves to Hitchcock.” Graves wrote many of the non-Indian settlers in Florence had “abandoned their farms and have left the country…. Neither the Florence canal, nor the land owners, have any claims on the waters of the Gila River, that are not subordinate to those of the Pima Indians, and had there been any provisions in the General Statutes, or any method of legal procedure, whereby the rights of the Indians could have been established and protected at the proper time, the settlers under Florence canal, and also the settlers of the upper Gila valley, might have been prevented from diverting and appropriating these waters to the injury of the Indians, but in the absence of such legal provisions, and no steps having been taken at the proper time, and the settlers having been permitted without interference to establish homes, and create improvements of great valuation, and acquire vested rights, it is well-nigh impossible now to remedy the wrong, by undoing what has been done.” See also Annual Report of the Commissioner of Indian Affairs, 1904, 7. Commissioner William Jones devoted fourteen pages of his annual report to the discussion of Pima water abuses. “Gila River Priority Analysis, Water Distribution Chart # 3,” United States Indian Service, Irrigation, January 20, 1926, in the archive files of the San Carlos Irrigation Project (hereafter SCIP files), Coolidge, Arizona.


405 Southworth interviews, statement of George Pablo, p. 29.

build a storage reservoir on the Salt River. Settlers of the Gila River and Casa Grande Valleys were convinced that the federal obligation to restore water to the Pima would ensure support for their reservoir demands. So pervasive was this belief that even members of Congress believed the first federal reclamation project would be on the Gila River for the benefit of the Pima.407

In the closing years of the nineteenth century, Congress debated the role and extent of federal support for and involvement in financing reclamation projects across the West. While a series of reclamation bills were introduced in Congress, none provided direct federal support to construct storage reservoirs. One became law in 1894 and provided grants of federal land to individual states, which could then sell the land and use the proceeds to finance reclamation projects.408 Territorial Governor Nathan Murphy was a catalyst in grants of land to the states, opposing direct federal involvement, fearing it would impede local control.409

While Congress made grants to the states, it authorized water resource investigations of western lands. The USGS set out to quantify water supplies, identify potential reservoir sites and map areas that could potentially be irrigated. In 1890, hydrologist Frederick Newell arrived in Arizona to review the Salt and Gila River basins. Within a year, he was looking at a number of reservoir sites along the Gila River. By 1893, he hooked up with Charles Walcott, Director of the USGS, and Arthur Davis, a

408 This was the Carey Act ("An Act Making Appropriations for Sundry Civil Expenses of the Government for the Fiscal Year ending June 30, 1895, and for other Purposes," 28 Stat. 422) and it amended the Desert Land Act. The Carey Act became law on August 18, 1894. By 1910, over one million acres of federal land had been granted to the states to help fund reclamation projects. More than seven hundred forty thousand acres was in Idaho alone, which benefited the most from the law. See Hays, 1980, p. 9. Arizona, still a territory, did not benefit from the Carey Act. Land was not to be sold in quantities of more than one hundred sixty acres.
hydrologic engineer, and began formulating a national irrigation policy. Such policy did not, however, include Indian Country. While the Indian Service encouraged agriculture in Indian Country and within the Pima Reservation, it did little to secure or protect the water necessary for agriculture to succeed.410

In 1895, Congress appropriated $3,500 for the USGS to conduct an irrigation study for the Pima Reservation. Newell assigned Davis to head the study and in his report to Walcott, Davis noted that outside of forcing upstream water users to “turn back into the river an amount of water equal to that formerly employed by the Indians” the only real option to providing water to the Pima was to build a masonry dam at a site on the Gila River capable of storing at least two hundred thousand acre feet of water. This dam could be on Queen Creek, a tributary of the Gila with twenty-seven thousand acre-feet of storage, or at The Buttes, twenty miles above the reservation on the Gila River with 208,000 acre-feet of storage. The latter site would provide twenty thousand acre-feet of water for the Pima and “leave a large surplus to be sold to settlers on Government lands under the canal system,” demonstrating the liberal nature of government policies that continued to support settlement. This is illustrated in Davis’ statement that it was impractical to return the flow of the river to the Pima. “The Government has taken no steps to protect the prior claims of the Indians to the water,” Davis argued, “and, on the other hand, has acquiesced in its diversions to the lands which it has disposed to other parties along the stream.” There were then some seven thousand acres irrigated under the Florence Canal. This land, Davis noted, “would be rendered barren by its being deprived

of water.” Consequently, it would be “the height of injustice” to deprive present landowners of the water.411

At the same time, the New York-based Hudson Reservoir and Canal Company secured a right of way across the reservation to deliver Salt River water to the Casa Grande Valley.412 As part of its right-of-way agreement, the company agreed to deliver water to Pima farmers whose lands abutted the canal.413 Despite grand plans, and as Davis had predicted, the difficulty in raising the capital needed to build the dam (estimated at three million dollars) was too great and the company abandoned the site.414

A number of territorial and federal officials sought and expected federal support for a dam on the Gila River. While for the benefit of the Pima, such a project would also

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411 Arthur P. Davis, Report on the Irrigation Investigation for the Benefit of the Pima and other Indians on the Gila River Indian Reservation, Arizona, (Washington, DC: GPO, 1897), pp. 3-4, 12, 54. Davis calculated one and a half acres per Indian and with four thousand Indians the total was six thousand acres of land. This was multiplied by one and a half acre-feet per acre to arrive at approximately ten thousand acre-feet of water. For future growth, Davis doubled the amount. Arthur P. Davis, “Irrigation near Phoenix, Arizona,” United States Geological Survey, Water Supply and Irrigation Papers, (Washington DC: GPO, 1897), pp. 65-66. Davis did not think it feasible to deliver water from the Salt River Valley to the Pima Reservation through what he termed a “highline canal.”

412 The Land Act of March 3, 1891 (26 Stat. 1096-97, section 2) had provided the company with the rights to the Box Canyon site at the confluence of the Salt River and Tonto Creek. Hudson proposed to build a dam capable of storing 757,000 acre feet of water. See The Taming of the Salt, p. 59.

413 Act of February 15, 1897, 29 Stat. 527. See also “Hudson Reservoir and Canal Company,” House Report 2049, 54th Congress, 1st Session, May 28, 1896. The original bill did not ensure Pima living along the route of the canal access to “water sufficient for all domestic and agricultural purposes” and was amended by the Senate to include such a provision. See Congressional Record, Senate, June 6, 1896, vol. 28, 54th Congress, 1st Session, p. 6184. The House concurred in February of 1897 (ibid, vol. 29, p. 1630).

414 The economic depression of the 1890s may well have doomed this project from the beginning. The Hudson damsite was eventually sold and later became the site of the Salt River Project’s Roosevelt Dam. This proposal is interesting as it indicates a Congressional intent to deliver Salt River Valley water to the reservation.
encourage the development of off-reservation lands.\textsuperscript{415} Territorial Governor Louis C. Hughes energetically encouraged the United States to construct a storage dam on the Gila River. Playing on the water needs of the Pima, Hughes envisioned a project that would irrigate five hundred thousand acres of land in the Gila River and Casa Grande Valleys. This would "supply all the land required by these Indians for all time to come" and allow "a bonus" of off-reservation land to be "served with water from the proposed reservoir." Hughes foresaw more than four million families making their homes in Arizona.\textsuperscript{416}

Inspector William Junkin encouraged the Indian Service to protect Pima water rights "before encroachments of the white men have deprived [them] of their prior rights." Special agent Franklin Armstrong reminded Secretary Ethan Allen Hitchcock the Pima "must have water for irrigation or starve."\textsuperscript{417} While Congress appropriated $20,000 for the USGS to evaluate and study two proposed dam sites it refused to commit to any project.\textsuperscript{418} "Until the time comes when the Government is ready and willing to come to the assistance of [the Pima],” Agent J. Roe Young complained, “I consider any further discussion of the subject unnecessary."\textsuperscript{419} Even Walcott noted the "matter of obtaining a permanent [water] supply for these Indians is one which has been before the Department in one form or another for fourteen years.” While Congress introduced a bill

\textsuperscript{417} "Frank C. Armstrong, Special Agent, to The Secretary of the Interior, dated November 23, 1901," in "Conditions of Reservation Indians, Letter from the Secretary of the Interior, dated February 21, 1902," in House Document 406, 57\textsuperscript{th} Congress, 1\textsuperscript{st} session (Washington, DC: GPO, 1902), p. 56.
\textsuperscript{418} "Junkin to Noble," dated Pima Agency, September 30, 1890, pp. 2-3, in \textit{Reports of Inspections}, Roll 36. See also Indian Appropriation Act of 1 July 1898, 30 Stat. 571.
\textsuperscript{419} Annual Report of the Commissioner of Indian Affairs, 1897, p. 115.
appropriating $1,000,000 to study the San Carlos site, it failed to enact it, instead appropriating another $30,000 for the “support of the Indians at the Pima Agency”.

The $30,000 appropriation was critical because of events both upstream of and far removed from the reservation. The entire Gila River watershed had undergone great ecological change in the nineteenth century. Beginning with the near extinction of the beaver from the Gila watershed, erosion, gully ing and silting had significantly increased with the loss of upstream mountainous forest canopies. Other factors that impacted the flow of water and disrupted its natural recharge included forest fires and the destruction of native grasses through overgrazing.

But there were other changes adding to the stress of the Pima. Using available surface water the Pima grew enough food on which to subsist but they were completely marginalized from the local economy. Hay—or alfalfa—was becoming the primary cash crop in central Arizona with barley the main cereal crop. With access to outside markets by rail and wheat planted in the Salt River Valley, wheat declined in value in Pinal and Maricopa counties. The Pima were unaware of these changes and, with water shortages and lower water demands, continued to cultivate wheat.

After 1890 the Pima were limited to a single winter crop. The completion of the Florence Canal in 1889, left the Pima dependent on the underflow that was forced to the surface in various locations along the river. The largest of these underground shon, or

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420 Ibid. 1904, p. 11.
422 John P. Wilson, Peoples of the Middle Gila: A Documentary History of the Pimas and Maricopas, 1500s-1945, Report No. 77, Gila River Indian Community, 1997, pp. 8-12, notes the Pima no longer grew cotton after 1890, with barley and wheat principle crops.
423 There was some surface flow as late as the mid 1880s. Annual Report of the Commissioner of Indian Affairs, 1883, p. 5.
springs, was located near Blackwater and helps explain why many Pima moved to the east end of the reservation at this time. Seepage water, also found at Sweetwater near the center of the reservation and Komatke on the west end, was “not very good” and resulted in reduced yields. The Pima grew less than two-thirds of their normal crop.

Drought was fast becoming the norm. While not a new phenomenon, the fact that drought was prefaced with increasing upstream diversions made conditions on the reservation even harsher. What water was left in the river increasingly failed to make it to the reservation or came as floods in short ephemeral bursts. Seepage into the sandy alluvium claimed more water than what actually arrived on the reservation. Summer crops failed eleven times between 1892 and 1904 and winter crops failed five times between 1899 and 1904, marking the years between 1892 and 1904 as the years of starvation. A Pima calendar stick for 1898-99 noted: “There was no crop this year.”

By 1900, agency physician George J. Fanning reported “more than the usual number of deaths among the Indians during the past year, owing, I believe, to a lack of water.” The result was an increased “state of semi-starvation and scurvy.” While not completely dependent on cultivated crops for food, the Pima diet was changing rapidly. Pima children especially suffered from malnutrition and nutritional deficiencies. An

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424 These alluvial springs were found in areas where the underground aquifer narrowed due to bedrock. Near Blackwater, the Gila River is forced between the Sacaton Mountains on the south and the Santan Mountains on the north. In the Komatke area the Gila River narrows between the Salt River (South) Mountains on the north and the Sierra Estrella Mountains on the southwest. The result is that the underground flow of the river is forced to the surface. See Willis T. Lee, “The Underground Waters of Gila Valley, Arizona,” Water Supply and Irrigation Paper No. 104, House Document 742, 58th Congress, 2d Session (Washington, DC: GPO, 1904).

425 Southworth interviews, statement of Ho-Ke Wilson, p. 45.

426 “Gila River Priority Analysis, Water Distribution Chart #3.”

elderly couple was found dead in their home without food of any kind in their storehouse. As proud people, the Pima “preferred to starve rather than beg.”

Drought conditions began in the spring of 1891 after the disastrous winter flood of 1890-91. While the Pima grew six million pounds (one hundred thousand bushels) of winter grain in 1889-90, they grew just half that amount in 1890-91. Conditions were serious enough that Junkin recommended the purchase of thirteen thousand pounds of flour and twenty-five hundred pounds of bacon for “destitute Indians.” By the fall of 1891, drought caused Arizona ranchers to ship hundreds of thousands of cattle and horses out of the territory. Nonetheless, more than twenty thousand head of steers were driven into the Salt River Valley to forage on irrigated alfalfa, suggesting there was plenty of water in that valley. Conditions on the Pima Reservation deteriorated to the point that the first large-scale cutting of one of the reservation’s few remaining natural resources—mesquite trees—began in earnest.

Every year after 1892—lasting through 1904—the drought prevented the Pima from growing sufficient crops to sustain themselves. Crouse estimated that one thousand Indians would raise no grain at all in 1893 and asked departmental authority to purchase three hundred thousand pounds of wheat for subsistence and seed. About five thousand acres of land were fenced and prepared for cultivation in 1895 but because of the

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428 Russell, The Pima Indians, pp. 64-66, notes that at least five persons died of starvation in 1898-99 alone. The following year a woman from Blackwater died after being bitten by a snake. “This woman had gone far out on the desert to search for mesquite beans, as she was without food; indeed the whole community was starving because of the failure of the crops owing to the lack of water in the river for their ditches.” John Ravesloot, The Anglo American Acculturation of the Gila River Pima, Arizona: The Mortuary Evidence (Paper Presented at the 25th Annual Conference on Historical and Underwater Archaeology, 1992), p. 16.
430 Report of the Governor of Arizona to the Secretary of the Interior, 1896, p. 22. Most of the cattle were shipped to Texas, Indian Territory, Kansas, California, Nevada and Oregon.
“scarcity of water” the Pima could not sow their grain. The Pima needed a minimum of fifty thousand bushels (three million pounds) of wheat just to subsist (based on two pounds per person per day for pinole and tortillas). The starving years had begun, even though other areas in southern Arizona continued to grow crops.

By the mid 1890s, conditions became so critical on the reservation that Young again requested permission to purchase an additional 225,000 pounds of wheat “to prevent starvation.” Young predicted the government would have to increase purchases of food annually for the Pima due to non-Indian development above the reservation. In 1894 alone more than 2,100 new acres were improved above the reservation, bringing the total acreage of improved land above the reservation to 26,343.

The Gila River stopped flowing on the reservation on April 10, 1895—a full month earlier than 1894. Summer crops again failed and the Pima faced hunger, prompting Young to inform Commissioner Daniel Browning that “a large number of these Indians” would have to be fed during the coming winter. “They made a strong effort to make a crop and would have done so had the water supply not given out.”

“Again this year they must have subsistence or suffer the pangs of hunger.”

In a sign of the times, a Pima father was convicted of grand larceny in the territorial district court. Wee Paps was arrested, tried and convicted of stealing several horses and trading them for food. Upon his conviction to serve one year in the territorial court.

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433 In Tucson, for example, “rivers, reservoirs, and canals contain[ed] an abundance of water for irrigation, and the fields and ranges are well moistened.” Report of the Governor of Arizona to the Secretary of the Interior, 1894, p. 23.
434 Annual Report of the Commissioner of Indian Affairs, 1895, p. 121. “Letter from J.R. Young to Secretary of the Interior Michael H. Smith, dated December 4, 1894,” in RG 75, Letters Received, Office of Indian Affairs.
435 This includes acreage filed upon. There were 6,520 acres actually farmed from the Florence Canal. “Duncan to Hitchcock.”
penitentiary, Wee Paps explained the Pima’s challenge: “Until the past few years we have always had plenty of water to irrigate our farms, and we never knew what want was. We always had grain stored up for a full year’s supply…. The Government refuses to give us food and we do not ask for it; we only ask for water, for we prefer to earn our own living if we can. I am no thief, and I will not beg, but my wife and children were hungry, and I must either steal or they must starve. So I took the horses and traded them for grain, and the hunger of my family was satisfied.”

The water gave out earlier in 1896, compelling Young to arrange work for more than two hundred Pima men on the Southern Pacific Railroad. Territorial Governor Benjamin J. Franklin repeated the challenge again: “water is growing scarcer (and) unless rain comes soon serious results will follow.” By July, the Governor reported “the reservoirs and canals [of the territory were] bank full and there will be no scarcity of water during the hot season.” Yet, on the Pima Reservation little progress was made in supplying the Indians with water. Consequently, the Pima were left “destitute and [in] much poverty and distress.” Given a fair water supply the Pima Reservation would be a prosperous community as demonstrated by the small parcels cultivated by the Pima that

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437 Reported in the Report of the Governor of Arizona to the Secretary of the Interior, 1895, p. 43. On page 23, Territorial Governor L.C. Hughes optimistically reported that Arizona had “10,000,000 acres of land capable of reclamation to agriculture, of which 997,000 acres” were then being cultivated.

438 Annual Report of the Commissioner of Indian Affairs, 1896, p. 115. The Pima soon earned a reputation as workers par excellence. Over the next few years they were employed in Arizona and Nevada. Working in the Ray copper mine railroads, in 1900, they were described as “far superior to the Mexicans.” In 1900, they earned nearly ten thousand dollars working on the railroad. See ibid. 1900, p. 196.

439 Report of the Governor of Arizona to the Secretary of the Interior, 1896, pp. 14-15. Many cattle had been brought into the Salt River Valley to “be fattened for the fall trade.”

440 See Annual Report of the Board of Indian Commissioners, 1898, p. 24 and Report of the Governor of Arizona to the Secretary of the Interior, 1901, p. 217. Murphy especially called the attention of the Secretary to “the great injury done to the Pimas by reason of the white man’s preemption of all the water…. These Indians protected the whites against murderous assaults of the more turbulent and vicious Apaches…. As the white population grew it became more aggressive and greedy, until now they have absorbed all the water above the Indian reservation, leaving the Indians destitute.”
resulted in some thirty to forty bushels of wheat per acre. By 1898, the Pima farmed fewer than four thousand acres of land.441

The drought turned deadly in 1899, when the winter crops also failed. The river ceased flowing across the reservation in February. With no rainfall between February and July, “crops that bid fair with a good start in January were an entire failure.” “Taking an average not more than half a crop of wheat was harvested this year,” Agent Elwood Hadley explained.442 While the summer rain arrived—allowing the Pima to raise some corn, beans and squash—that summer proved to be drier than any in the past decade.443 Some of the Pima, “driven by hunger,” crossed into Mexico on marauding expeditions. Facing starvation, the Indians were overtaken by “an insidious blight” of poverty. With each successive crop failure, they planted less. Each planting yielded less. Expecting less, they “scaled down accordingly the standard of their existence.” More farms were abandoned, while others were only partially cultivated “yielding scant and uncertain returns.” As the “lines [of despair] have tightened about the

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443 Arizona Territorial delegate John F. Wilson introduced a bill in Congress to authorize the San Carlos Project. The preamble stated the intent was to relieve the “dependent” Indians of their destitution. See A History of the Pima Indians and the San Carlos Irrigation Project, compiled by Senator Carl Hayden, Senate Document 11, 1965 (Washington, DC: GPO), p. 53.
Indians,” some of the men congregated at the agency in Sacaton hoping to find work or news of the return of their water.444

As bad as conditions were, they grew worse in 1900. S. M. McCowan, Superintendent of Phoenix Indian School, visited the reservation in May, describing many Pima families had “nothing to eat now but mescal and old mesquite beans. Last year’s crop of wheat is entirely exhausted and the new crop will not be ripe for weeks. And the worst of it is that when the new crop ripens there will be so little of it, owing to the drought, that a very few weeks will see it all gone.” The Pima were in a “deplorable condition. Never before in the history of the tribe [had] they been so destitute nor the prospects for immediate improvement more discouraging.” Just one-fifth of the Pima grain crop was harvested with their cattle “dying in large numbers.”445

The national media broadcast the predicament of the Pima in the summer of 1900, but not due to any particular moral culpability on the part of the American people. In 1893, the National Irrigation Association was formed in Chicago to advocate federal reclamation projects. While the association found limited success with the Carey Act of 1894, the act had no effect in Arizona Territory. What the association needed was a strong moral argument and a national poster child to represent the need. The National Irrigation Association looked no further than the Pima Reservation, where a strong moral and legal case demonstrated the necessity of federal subsidies for reclamation. Only the federal government could resolve Pima water needs and in the process open the door to a national policy of federal reclamation.

444 “Graves to Hitchcock,” pp. 2-4, 8.
445 Quoted in “Pimas and Papagos,” Florence Tribune, May 19, 1900, p. 2. “Distress Among Indians,” Phoenix Republican, June 29, 1900, p. 4. Harvested from agave, mescal was a natural desert plant cultivated by the Pima who utilized its “heart” as a food source.
The National Irrigation Association encouraged the publication in 1900 and 1901 of sympathetic media stories regarding the Pima. Dozens of newspapers, including those in Los Angeles, New York, Chicago, Washington, D.C. and in places in between, carried stories of Pima privation. The *Chicago Tribune*, for instance, reported: “This statement of the pitiable condition of the friendly and industrious Pimas is old news to western readers, and the case is one of the most shameful and outrageous instances of neglect and betrayal on the part of the United States of an ally, worthy and true. That 6,000 Pima Indians, always the consistent and active friends of the white man, should be reduced from a condition of wealth and great prosperity to actual starvation through neglect of the federal government,” the newspaper opined, “while the adjacent Apaches, always the white man’s foes and causing more trouble, pillage and loss of life than any western tribe, should be today sleek and well-fed at the hands of the same government, seems a rewarding of enemies and killing of friends.” The *Tribune* implored, “Cannot some of our friends, who have anon professed such interest in the poor red man come to his assistance now and see that he may be accorded simple justice? The cause is worthy, the means are at hand; the interest alone is lacking.”

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The *New York Tribune* carried a similar story. “About 6,000 of these Indians are dependent for their subsistence upon the lands of the reservation which contains 350,000 acres, while the water supply in the Gila last year, owing to use for lands above, has not been sufficient to irrigate 1,000 acres belonging to the Indians. Fully half the crops planted have not produced enough for seed, notwithstanding the great fertility of the soil.”

Despite Alexander’s assertion that the reports of starvation were exaggerated, stories of Pima starvation circulated in newspapers across the country. Even Governor Murphy acknowledged that the agricultural growth of the Gila Valley above the reservation had “been disastrous to the [Pima].” Presbyterian ministers Sheldon Jackson and George L. Spining released a report of their investigation of the Pima situation in 1900. Distributed to churches, charities and philanthropists across the nation,

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Jackson and Spining painted an austere picture of the severity of the crisis. “Of 586 families recently visited, of whose number 1,428 are males and 1,425 are females,” the Presbyterians explained, “only 7 families have been able to get a full crop; 17 have raised three-fourths of a crop; 39 have secured about half the regular crop; 91 families have got only one-sixth to one-fourth of a crop, and 432 families of industrious Indians eager to work have not been able to raise any crop at all for lack of water.”

The summer monsoons began in central Arizona in the middle of July 1900. But despite an inch of rain in Florence on July 19, the drought was too far along. On July 21 the Florence Tribune reported the Pima were busy “hauling away their dead cattle and horses.” More than 150,000 pounds of wheat and 5,000 pounds of beans were distributed that summer and Hadley continued to distribute to “the needy and helpless.” Some Pima resorted to gleaning grain from off-reservation fields. “[M]any of the Indians, by permission of the owners of the lands, gleaned the fields and gathered many lbs. of which greatly aided in their sustenance,” Hadley informed Jones.

While the Pima suffered from drought, groundwater could still be found from ten to thirty feet deep in wells across the reservation. There was no reason, Hadley asserted, “why the Indians cannot provide water for their stock with a little labor.” This truth reflected the fact that, while the surface waters of the Gila River dried up, the subsurface flow remained. The introduction of off-reservation groundwater wells, nonetheless,

impacted the underground flow, with Crous e reporting the water table had already dropped between five and eight feet in Sacaton.

The loss of water was compounded due to the Pima’s manner of farming. The Pima “did not irrigate too much [at one time],” Presbyterian missionary Charles Cook explained, “because it would bake the land.” On the other hand, by irrigating a “little at a time” they could grow a good crop. Lower quantities of water dispersed over shorter intervals yielded higher quality crops since they minimized soil crusting. Cook suggested this was the reason for the superior crops of the Pima before water shortages. Crusting soil, which became more commonplace as water diminished, reduced yields.453

To survive the crisis, the Pima began cutting large quantities of mesquite wood to sell as a cash crop. More than 19,000 cords of mesquite were cut and sold in 1900.454 The Pima had been cutting and selling mesquite since 1892 when drought first began. In the span of a few years, what had once been a dense mesquite bosque stretching more than sixty-five miles along the Gila River and its tributaries was nearly destroyed. An 1896-1897 Pima calendar stick noted “the Black water Indians were forced to leave home to sell wood.” A year earlier, nearly five hundred cords were cut and sold “by Indians whose crops had failed.”455 By the summer of 1900, the Arizona Gazette reported more than

thirty thousand cords of firewood, “cut and piled between Maricopa Junction and Phoenix,” were waiting to be transported to towns north of the reservation.456

Table 3: Grain Production vs. Cords of Mesquite Cut, 1887-1904

<table>
<thead>
<tr>
<th>Year</th>
<th>Winter grain grown (bushels)</th>
<th>Corn (bushels)</th>
<th>Wood cut* (cords)</th>
<th>Acres#</th>
</tr>
</thead>
<tbody>
<tr>
<td>1887</td>
<td>105,000</td>
<td>5,000</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>1888</td>
<td>110,000</td>
<td>2,700</td>
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<tr>
<td>1889</td>
<td>144,000</td>
<td>3,600</td>
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<td>---</td>
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<td>1890</td>
<td>114,000</td>
<td>3,000</td>
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<tr>
<td>1891</td>
<td>50,000</td>
<td>---</td>
<td>200</td>
<td>256</td>
</tr>
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<td>1892</td>
<td>110,000</td>
<td>5,500</td>
<td>300</td>
<td>384</td>
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<td>76,000</td>
<td>3,000</td>
<td>350</td>
<td>448</td>
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<td>62,000</td>
<td>0</td>
<td>1,000</td>
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<td>1895</td>
<td>70,950</td>
<td>500</td>
<td>1,500</td>
<td>1,920</td>
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<td>1896</td>
<td>51,250</td>
<td>0</td>
<td>4,000</td>
<td>5,120</td>
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<td>1897</td>
<td>51,250</td>
<td>0</td>
<td>1,500</td>
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<td>1898</td>
<td>117,819</td>
<td>0</td>
<td>1,500</td>
<td>1,920</td>
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<td>1899</td>
<td>34,488</td>
<td>1,072</td>
<td>5,000</td>
<td>6,400</td>
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<tr>
<td>1900</td>
<td>12,980</td>
<td>180</td>
<td>19,000</td>
<td>24,320</td>
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<td>1901</td>
<td>25,417</td>
<td>36</td>
<td>11,000</td>
<td>14,080</td>
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<td>1902</td>
<td>16,955</td>
<td>18</td>
<td>14,896</td>
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<td>1903</td>
<td>42,051</td>
<td>18</td>
<td>10,600</td>
<td>13,568</td>
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<tr>
<td>1904</td>
<td>12,000</td>
<td>500</td>
<td>5,300</td>
<td>6,784</td>
</tr>
</tbody>
</table>

* Based on an average of 128 cubic feet of mesquite per cord
# Based on 100 cubic feet of three inch or greater diameter wood per acre

(Source: Annual Reports of the Pima Agency, 1887-1905)

In December of 1899, Jones approved of a plan to cut “dead and down wood” within the reservation, although there was no way to prevent individuals from cutting live trees to meet the needs of their families. Hadley attempted to restrict the cutting of mesquite to an area west of the Maricopa and Phoenix Railroad (in the Santa Cruz River drainage southwest of Pima Butte). The railroad even built a special switching yard to

456 Arizona Gazette, April 16, 1900. In general, it took a man two to three days to cut and stack a load of mesquite, which he sold for about six dollars. He typically cut the wood and drove it between fifteen and twenty miles to sell it. “With more plentiful water the Indians leave off the wood cutting and go back to their fields.” See J.W. Hoover, “The Indian Country of Southern Arizona,” Geographical Review (1929) 19:49.
accommodate the Pima and Maricopa who sold wood.457 Between 1900 and 1905, more than fifty thousand cords of mesquite were cut and sold for use off the reservation, destroying an estimated sixty-four thousand acres of mesquite lands.458 In the dozen years of famine nearly a hundred thousand acres of mesquite was cut and sold as fire wood in surrounding off-reservation towns, causing tremendous ecological, environmental and cultural degradation on the reservation (see table 3).459

Cutting mesquite was not a new proposition. Historically, the Pima cut mesquite and the trees regenerated since they had long taproots that accessed the high water table beneath the reservation. As the water table dropped, the trees struggled to survive on the scant rainfall of the desert. As mesquite harvesting escalated and the mining of groundwater and upstream diversions increased, many of the trees were unable to regenerate and died. The degradation continued throughout the early twentieth century with the result of this mass cutting still visible across the reservation today as hundreds of thousands of stumps remain as evidence of the once expansive Pima mesquite bosques.

The Pima were increasingly dependent on the Government for

Figure 6:5. Antonio Azul standing in front of hundreds of cords of mesquite at Sacaton Station ca. 1900. Photo courtesy of the Pima-Maricopa Irrigation Project.

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457 “Hadley to Jones, dated July 21, 1900,” and “Hadley to Jones, dated Pima Agency, August 17, 1900,” in RG 75, Letters Received, Office of Indian Affairs. The siding was originally called Sacaton Station but eventually became known as Sacate.
459 Rea, At the Desert’s Green Edge, pp. 54-55.
support. In 1898 the Board of Indian Commissioners expressed grave concern over President McKinley’s lack of attention to their rights. “We regret that so little progress has been made toward supplying the Pima” with water, the Board wrote. “A plan for their relief has been proposed, and we urged Congress to appropriate a sufficient fund to carry it out, but all we could get was a grant of $20,000 for a preliminary survey and estimate of the cost of the work.”460 In 1901, the Board pleaded for the President to act. “White settlers on the river above them have recently diverted this water. This they would not have been allowed to do without protest and legal protection if the earlier irrigators had been whites and not Indians…. These Indians are now in danger of starving because the water has been taken from them and all their crops fail.”461 The Pima grew just 12,980 bushels (779,000 pounds) of wheat in 1900, enough for just 1,067 people to subsist. The six year average (1899-1904) for grain crops totaled 23,982 bushels, less than the 25,000 bushels needed for subsistence. In addition, the Pima needed 25,000 bushels of corn, with the same period yielding just 340 bushels annually. More than 4,000 Pima faced some level of hunger. The Board of Indian Commissioners recommended President Roosevelt provide the Pima with adequate irrigation.462

While the Board’s report circulated in Washington, D.C., the Pima continued to starve. Hitchcock dispatched inspector Walter Graves to the reservation in the summer of 1900 for the express purpose of “ascertain[ing] the feasibility of a limited system of irrigation.” Graves, however, was limited to an expenditure not exceeding $30,000, an

460 Annual Report of the Board of Indian Commissioners, 1897 p. 11 and ibid, 1898, p. 17.
461 Ibid, 1901 and 1902, p. 15. Emphasis is in the original.
462 Ibid. 1904, p. 16. The Board went on to state “in our opinion the neglect of the Government to care adequately for these Indians for the past ten years has been driving back toward hopeless pauperism and laziness the largest body of skilled and trained agriculturalists ever known in the history of our Indian tribes.” Every annual report between 1897 and 1911 specifically pointed out the great need among the Pima.
amount too small with which to build an irrigation system and too large to waste on a system that would wash out with the first flood. Instead of a limited system, Graves suggested the development of a project to bring the “underground waters” of the Gila River to the surface.463

The Gila River flowed until May in 1901, giving the Pima hope that they might harvest a sustaining crop. But the water again gave out before the wheat matured. “[T]he wheat shriveled up,” Hadley lamented, “and much of the grain failed to mature at all.” Some 25,000 bushels of wheat were harvested that summer. While the summer rains began to fall in July, they were insufficient to sustain Pima summer crops. “Unless the government provides ways to work them and help the old and disabled of which there are a large number, starvation awaits them.”464 Congress appropriated $40,000 to feed the Pima that year, but the people missed “their beans, bacon, coffee, and sugar,” to which they had grown accustomed during the good years.465 About 900 Pima managed to make a living at Gila Crossing, one of the few areas within the reservation that had water. Pima farmers cultivated fewer than 3,600 acres in 1900.466

Conditions were so poor in 1902 that Chief Antonio Azul and twelve village leaders petitioned Commissioner William Jones to provide them with work. “We have had very poor or no crops for the past three years,” Azul wrote. “About two thousand of us are not likely to raise any wheat this year, because we have no water…. Our Horses and cattle are dying for want of food and [having] nothing to feed them we cannot work

463 Irrigation for the Pimas, pp. 1 & 3.
464 “Hadley to Jones,” July 26, 1901.
465 “Hadley to Commissioner William Jones, dated Sacaton, Arizona, September 13, 1902,” RG 75, Letters Received, Office of Indian Affairs.
them…. Many of our people have not enough to eat and to wear and don’t know what to do for a living.” 467 Some “of the older Indians who were once self-supporting are now drawing rations,” sixty-eight year old Pima Juan Jose added, “while some of the Pimas are living on what little they can make by selling wood.” 468 In April 1902, Congress formally acknowledged a measure of culpability for the condition of the Pima. The federal government must “provide for these Indians who have supported themselves by means of irrigation and cultivating the land from time immemorial,” a Senate Committee stressed, “in as much as the action of the Government in disposing of lands to settlers higher up the river has deprived them of the means of subsistence.” 469

The following year, Azul appealed directly to President Roosevelt. Noting the Pima’s historic assistance to American emigrants and his people’s long history of irrigation farming in the desert, Azul informed the President of their desire to remain self-sufficient. In recent years, the aged chief told Roosevelt, “our water supply during low water has been taken from us by whites, and there has been much suffering for the necessaries of life.” Furthermore, Azul lamented, the Pima had experienced an agricultural loss “of over $100,000.” 470

Roosevelt assembled a committee to examine the complaints of the Pima, concluding “the conditions of these people has (sic) been one of grinding poverty and that there has been extreme and wide-spread suffering among them.” While they had

467 “Antonio Azul and subchiefs to Commissioner of Indian Affairs William Jones, dated Sacaton, Arizona, March 29, 1902,” transmitted by “Hadley to Jones, dated September 13, 1902,” RG 75, Letters Received, Office of Indian Affairs.
468 Southworth interviews, statement of Juan Jose, pp. 67-68.
470 “Antonio Azul and Twelve Subchiefs Petition to President Theodore Roosevelt, dated Pima Agency, February 28, 1903,” in RG 75, Letters Received, Office of Indian Affairs.
managed to retain “their self-respect and have endeavored to eke out a living,” the
President acknowledged the U.S. was responsible for the “deprivation of their water,”
which was the cause of their condition. For all intents and purposes, there had been “no
crops for six years and most cattle herds had been sold for subsistence.”\footnote{Quoted in Hackenberg, p. 173.} Eleven years of crop failures—including five consecutive years of failed winter and summer crops—had reduced the Pima to a position of government charity.

While the drought ended in 1904, the Pima continued to suffer.\footnote{See George L. Spinning and W.A. Jones, Report of Findings and Recommendations of Committee on Investigation of Conditions and Needs of Pima Indians on Gila River Reservation, Arizona, (Washington, DC: GPO, 1904).} They were now dependent on federal assistance. They had cut tens of thousands of cords of mesquite, one of their most sacred and precious resources. A dying river and declining water table was destroying one of the few resources the Pima retained. The drought, followed by a series of floods, not only changed the course of the Gila River but also deepened its channel, rendering the Pima irrigation system obsolete and unusable—even if water had been available. The Pima economy, once strong and vibrant, had been destroyed. Discouraged and lacking water, the Pima could neither feed themselves nor compete with the local economy.

The Pima grew bitter “at living in the knowledge that the white man far up the river was stealing his water which had once given life to fields of grain and had established a land of plenty.”\footnote{Pinal County Historical Society, File Folder “Irrigation in the Florence District,” Handwritten report of C.H. Southworth on the San Carlos Water Supply, n.d. Florence, Arizona, pp. 3-4. Southworth interviews, statement of Oliver Sanderson, p. 85.} The result of the loss of their water was the Pima were completely displaced from their traditional economy and were no longer self-sufficient. There was no hope they would join the growing economy of central Arizona and, without
protection and restoration of their water, their very existence was in doubt. Only a modern irrigation system to replace the one that had been destroyed and abandoned due to water loss could restore any sense of hope.

In the following chapter, I consider the impacts of the 1902 National Reclamation Act. Political leaders and farmers from both the Gila River and Casa Grande valleys banked on the Pima water crisis to convince Congress to open a large area of public lands above the reservation. Instead, political interests and land speculators influenced changes to the act, resulting in Salt River Valley residents receiving the first reclamation project in 1903. A political battle in central Arizona over control of Indian land and resources pitted the Pima against powerful economic and speculative forces in the Salt River Valley. At the center of these activities was the application of land severalty to the reservation. While tribes in Arizona were among the last to face severalty, allotment took on new meaning after the passage of the Reclamation Act, targeting water as much as the land. While non-Indians developed large-scale irrigation projects that threatened to draw upon Indian water resources, the Pima quickly found themselves a pawn in the economic integration of Indian resources into the national economy.
CHAPTER 7

“A SCHEME TO ROB THEM OF THEIR LAND?”
ALLOTMENT OF THE PIMA RESERVATION, 1902-1921

The passage of the National Reclamation Act of 1902 set off a showdown over control of Indian land and resources in central Arizona. In a microcosm, powerful economic and speculative forces in the Salt River Valley were pitted against the survival of local Indian tribes. At the center of these activities was the division of Indian land in severalty. While tribes in Arizona were among the last to face land severalty, allotment took on a new focus in the territory, one directed at water as much as land.

Allotment in central Arizona did not commence until Roosevelt Dam neared completion. But rather than adhering to the gradualist severalty policy envisioned by the policy’s framers in the 1880s, government officials and speculators now viewed that policy as undermining the economic growth of the West and the assimilation of the Indians. Land ownership was no longer a defining point in the “civilization” of the Indian; it was now a pawn in the economic integration of Indian resources and labor.

As Congress debated the Reclamation Act, it assumed the first federal reclamation project would be for the relief of the Pima. Yet, no sooner had the bill become law than political maneuvering in the Salt River Valley and Washington, D.C., persuaded Reclamation officials to support the Salt River project.474 Popular writer Charles Lummis could not overlook this irony. “Everyone remembers, of course, that the very forefront of

National Reclamation was the San Carlos Reservoir. It was urged and urged with all the eloquence of the irrigation crusade, and with the added plea of humanity. It was not only to be a great exemplar of the noble National Irrigation policy of reclaiming arid public lands in order that home-seekers might find homes,” Lummis wrote in 1903, “it was also to succor something like 7000 Pima Indians … who are starving because deprived of their water by white settlers.” If it had not been for the Pima, Lummis added, “it is not too much to say that the whole National Irrigation movement would have been handicapped by several years.”

After 1902 tribal sovereignty was under attack from all levels of government. Congress enacted numerous bills restricting tribal authority and the U.S. Supreme Court followed suit. In 1903, the court ruled in Lonewolf vs. Hitchcock that Congress had absolute authority to unilaterally change the terms of agreements and treaties made with tribal nations, opening the door for further erosion of tribal rights and authority. Locally, speculators, railroad corporations, timber and mineral interests, and agriculturalists clamored for control of Indian land, lobbying for changes in the General Allotment Act to open up additional Indian land. In a classic Darwinian sense, it was a time for Indians to fend for themselves. If the Indians could not adjust to the evolving policy of economic integration, they “would remain on the fringes of American society—behind and below their enterprising new neighbors—”even if they adjusted as did the Pima.

Even the Arizona Territorial Legislature memorialized Congress seeking federal support to allot in severalty the lands of tribal nations within the territory. In a supposedly

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altruistic gesture, territorial officials pledged their support that Indians should “be furnished with farming implements and an inexhaustible supply of water for irrigation of their lands.”477 Within two years, a plan was afoot to restore water to the Pima Reservation and divide its land in severalty. To pay for this scheme, the Indians were to give up 180,000 acres of land. Owing to the influence of irrigation engineer William H. Code, the Indian Service believed the water supply for the reservation—a precursor to allotment—would come not from the Gila River but from groundwater drawn to the surface by electric pumps.478

Dispatched to the Pima Agency as Indian Inspector in 1902, Code soon became Chief Irrigation Engineer for the Indian Service. A former irrigation engineer employed by Dr. A. J. Chandler and vice-president of Chandler’s Mesa Bank, Code had connections to Frederick Newell and Interior Secretary Richard Ballinger, who happened to be a good friend of President Theodore Roosevelt. Code served as “the engineer member” of the Salt River Valley Water User’s Association (SRVWUA), which met weekly to consider all possible means for securing water for the Salt River Valley. Code was adamant that groundwater was the only means of restoring water to the Pima and it was at his behest the Indian Service no longer recommended the construction of a dam at San Carlos, which Code saw as “wasteful and unsuitable.”479

478 Indian Inspector and engineer Colonel Walter Graves first proposed development of the underground waters of the Gila River in the summer of 1900, not because it was the only means to secure water but, rather, due to his belief that Congress would not construct a dam and storage reservoir and commit itself to a “policy of Government patronage hitherto eschewed.” See Irrigation for the Pima Indians, Senate Document 88, 56th Congress, 2nd session (Washington, DC: GPO, 1901), pp. 2, 4-5.
Working with Louis Hill and Frederick Newell of the Reclamation Service, Code proposed wells in place of water stored in the proposed San Carlos reservoir. Using their influence, the three men laid out a scheme that was deleterious to the Pima. Code met with Arthur Davis of the U.S. Geological Survey immediately after the passage of the Reclamation Act to see if a way could be found to secure water to benefit the Pima. Code badgered Davis until he finally offered a solution: water could be had at the cost of 180,000 acres of land. If Davis would recommend the cession, Code promised to see to it that it was approved.\textsuperscript{480} It was at this time, Presbyterian Missionary Charles H. Cook opined, that the Reclamation Service went into the hands of big speculators.\textsuperscript{481} Interior Secretary Ethan Allen Hitchcock had already gone on record supporting the San Carlos site, although with Code no longer encouraging construction at San Carlos, support for the first federal reclamation project in Arizona quietly transferred to the Tonto site.\textsuperscript{482}

With the passage of the Indian Appropriation Act of 1903, Congress provided $150,000 for general irrigation works on Indian lands. These funds were administered under the authority and at the discretion of the Secretary of the Interior. Using this authority, the drilling of wells on the reservation began. The master plan was to construct ten pump stations “each furnishing sufficient water for the irrigation of about 1,000 acres of land.” The cost of these wells was around $80,000, with $460,000 needed to construct

\textsuperscript{480} Hearings before the Committee on Expenditures in the Interior Department of the House of Representatives on House Resolution No. 103 to Investigate the Expenditures in the Interior Department, June 5, 1911, Part 16, (Washington, DC: GPO, 1911), p. 662.

\textsuperscript{481} Cook called the Salt River Valley speculators “ grafters, who I am afraid have the Salt River Water User’s Association and Mr. W.H. Code to aid them.” See Memorials in RE Investigations of Pima Indians, Arizona, United States Congress, House of Representatives, Congressional Committee Print, 62-1-11 H3841, p. 4.

\textsuperscript{482} See “An Irrigation Meeting,” The Arizona Republican, July 15, 1902. The chief reason Hitchcock favored the San Carlos site was that it alone would provide “sufficient relief” to the Pima. Report in the Matter of the Investigation of the Salt and Gila Rivers, pp. 312-314. Between thirty and forty prominent settlers and speculators in the Salt River Valley joined forces to pressure the powers that be to select the Roosevelt site. This list included, among others, A.J. Chandler, W.M. Dobson, Benjamin Fowler, Dwight B. Heard, J.T. Priest, William Christy, J.C. Adams, Frank Grummell, B.A. Fickus, S.S. Greene, J.H. Wolfe, Joseph Stewart, Joseph Kibbey, and W. J. Murphy. The Tonto site was selected in October 1903.
a power plant in the Salt River Valley, making a total appropriation of $540,000 necessary. Since these funds were reimbursable, the Pima would have to repay the costs after they had received fee simple title to their land.

Code recommended the approval of a plan to sink four or five wells at the Sacaton school farm and install a “first class pumping plant” capable of irrigating 600 acres of land. Code kept this request from the Pima fearing they would not support his scheme. Designed as a precursor to the ten large pumps to be installed at Santan, Code received permission from Commissioner William Jones in December of 1902 to install five smaller wells. The pumping plant (five wells combined together) was operational by the winter of 1904 and, by summer, provided 2,000 gallons a minute, enough to irrigate 250 acres of land (600 acres if the pumps ran 24 hours a day).\textsuperscript{483} The quality of water, Code assured the commissioner, was “much superior” to the water pumped in the Salt River Valley. In May, Superintendent John B. Alexander was authorized to spend $4,000 to increase the size of the existing plant and evaluate the prospects for sinking two more wells.

That same year, J.R. Meskimons, superintendent of irrigation for the reservation, proposed developing the seepage waters of the Gila River to put on a self-supporting

\textsuperscript{483} The Indian Office approved of this plan in December 1902 and on March 23, 1903, a contract for the construction of five wells costing $5,000 was approved. See Annual Report of the Commissioner of Indian Affairs, 1904, p. 16. See also Report of the Governor of Arizona to the Secretary of the Interior (Washington, DC: GPO, 1904), p. 34.
basis “about one-half of the Indians that depend upon the Gila River water.” These plans were forwarded to Code, who agreed there were 1,400 miner’s inches (35 cubic feet per second) of water at Gila Crossing but claimed the Pima were irresponsible farmers, irrigating just 1,035 acres of crops when they could have been irrigating more than 4,000. “Until the present water supply is used by these Indians in a proper manner and made to irrigate every acre it can successfully provide for,” Code informed Francis Leupp, “I would not recommend spending large sums of money in this locality.”

In the meantime, Alexander—having been requested by the U.S. District Attorney through Jones to provide information relative to Pima water rights—told the commissioner there were 960 water users above the reservation. While he believed Pima water rights could be “prosecuted to a favorable ending,” Alexander informed Jones that non-Indian interests upstream were varied and the water was diverted by settlers as far as 200 miles above the Indian’s point of diversion. It “would be impossible,” Alexander argued, “for the court to enforce” any decree of rights.

Leupp agreed that the courts were not the proper means to secure water for the Pima. In reality, he and his successor Robert Valentine subscribed to the legal theory that the Pima no longer had any rights to the waters of the Gila River since upstream farmers were making beneficial use of them. Government negligence in failing to protect Pima water would be alleviated not by restoring water but by confirming upstream users in

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their junior rights to the water. The Justice Department allowed the matter to drop.\textsuperscript{486} Despite the 1908 \textit{Winters vs. United States} Supreme Court ruling that recognized tribal rights to water, the Indian Service operated on the belief that Indians had to demonstrate beneficial use as did non-Indians, a proposition that was upheld by a federal court in 1916.\textsuperscript{487}

Code acknowledged that he “had as much authority, and probably more, than anybody else in the field” over water matters. Despite being charged with providing the Pima with water, he “never regarded it as feasible to attempt to fight for water rights that had been taken away so many years before.” In his view it was impossible for the Pima to recover their “low water rights.” Groundwater was the only option.\textsuperscript{488} In the process, Code sought to redefine Pima water rights according to the beneficial use doctrine as set forth in local law, seriously undermining Pima sovereignty over their water resources.

The Pima did not desire groundwater, believing it caused bowel and kidney problems and killed cattle and horses.\textsuperscript{489} In a letter to Hitchcock and Leupp, Antonio Azul requested stored water from the Salt River project. This water could be transported by canal to Pima lands, the chief informed the two men, through a highline canal.\textsuperscript{490} Code

\textsuperscript{486}Hearings before the Committee on Expenditures in the Interior Department of the House of Representatives on House Resolution No. 103, Part 5, p. 127. Valentine addressed the issue of water rights, noting “the taking out of water by the settlers … very seriously threatened the water of the Pima Indians, and I am not sure now … whether the Pima Indians lost substantially all of their water rights except to the flood waters or not, but I am under the impression that they did … by the beneficial use of the water [by non-Indians] above them.”

\textsuperscript{487} The Winters decision applied to the Fort Belknap Reservation and was interpreted as applying to treaty reservations only. It would not be until 1963 in the \textit{Arizona vs. California} decision that the Winter’s Doctrine was recognized as applying to all tribes, whether or not created or recognized by treaty. The Pima Reservation was created by an Act of Congress in 1859 and was enlarged by Presidential Executive Order. For the 1916 decision, see \textit{United States vs. Wightman}, 230 Federal Reporter 277 (1916).

\textsuperscript{488}Hearings before the Committee on Expenditures in the Interior Department of the House of Representatives on House Resolution No. 103, part 16, pp. 654-656.

\textsuperscript{489} \textit{Book A, Dr. Cook’s First Record Book}, (hereafter \textit{Cook’s First Record Book}) Record Group 1, File 13, Charles Cook Collection, Cook College and Theological School, Tempe, Arizona, p. 103.

\textsuperscript{490} “Letter from Antonio Azul and Pima Headmen to Secretary Hitchcock and Commissioner of Indian Affairs Francis E. Leupp,” dated March 1, 1906, in ibid, pp. 79-80. See also “A Storage Reservoir,” \textit{The Arizona Republican}, July 15, 1902 and July 25, 1902. The \textit{Republican} expressed its opinion that the Highland and Consolidated canals running south from the Salt River to the northern boundary of the reservation could be extended to convey Salt River project water for “at least 15,000 acres of land on the reservation.”
did not share Azul’s view and he did not wish to include Pima land in the SRVWUA, seeking instead to have the government construct a power plant on the Salt River and transport electrical power to the reservation. As a backup energy supply, Code solicited approval to build an auxiliary 500-kilowatt steam plant on the reservation to generate power.

The $540,000 Code requested for ten wells and electrical power would pay a substantial portion of the hydroelectric power plant below Roosevelt Dam. Code was more than “willing to pay the [Pima’s] proportionate part” of the Salt River project using Pima funds.491 Leupp agreed since he believed any water rights the Pima had would be permanently lost if the water were not quickly put to beneficial use under local law.

The Sacaton Contract, as the power agreement came to be known, spelled potential doom for the Pima. Signed by Interior Secretary James Garfield on behalf of the Pima and Benjamin Fowler and Frank Parker on behalf of the SRVWUA, the contract provided the Association with a significant customer for its surplus electrical power. The success of the Pima—and the protection of their water—was now dependent on the completion of Roosevelt Dam and the generation of electrical power in the Salt River Valley. The contract itself provided for the sale of 1,000 horsepower of electricity to the Pima for $300,000. But this was simply the right to use electrical power; it still had to be purchased. And this power was only available “out of the excess power over and above

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that which may be needed by the members of the Association.  

The Indian Service immediately transferred $100,000 to the Reclamation Service.

Under the Sacaton Contract, 10,000 acres of reservation land was to be part of the Salt River project for determining costs (and the Pima paid their proportionate share), but the Indians were not made members of the SRVWUA, although the contract included the caveat that once the Indians became owners severally in fee simple—and at the discretion of the Secretary of the Interior—their lands could be made part of the Association. Under no circumstances was water to be furnished to the reservation. Former Territorial Governor and Judge Joseph Kibbey, who drafted the document, admitted non-Indians would not have entered into such a contract. Nonetheless, Code approved it. By so doing, the Indian Service—knowingly or not—committed itself to a policy that complemented the scheme laid out by Code. Once the groundwater project was initiated, the Pima would be unable to pay the costs associated with repaying the construction and operation and maintenance charges of the project, thereby forcing them to sell a large portion of their reservation.

With the contract in hand, the well project continued and provided Code with a legal means of detaching the western half of the reservation and throwing it open to non-Indian speculators. With the completion of the Salt River project, this land would become valuable as it was susceptible to irrigation from the Salt River. Since the Sacaton Project (as the reservation project became known) obligated the Indians to repay $540,000, Code

492 The contract between the Secretary and the SRVWUA, dated June 3, 1907, is in ibid, pp. 162-164. The SRVWUA was not to be held liable for the failure to provide power.

493 Ibid, page 363. Louis Hill, on page 563, acknowledged that the Pima were the “only ones who contributed anything to the payment of the project…. None of the rest have paid.”
now recommended the sale of 180,000 acres of the reservation at $3 per acre, even though land with water was selling at more than $100 per acre.

In January 1905, the Senate Subcommittee on Indian Affairs met to discuss the Sacaton Project. Testifying before the subcommittee, Newell explained that a power plant along the Salt River was essential to the project, as it would produce electricity to “pump water for the Pima Indians from beneath the surface of their own land.” Newell underscored the fact the funds by law would have to be repaid. This could be done only by opening to sale a portion of the reservation “not now utilized or occupied by the Indians, [but] which may have some value in the future.” Newell assured the Senators that groundwater was “the only feasible proposition for supplying these Indians with water.”

Davis concurred with Newell’s position that the project would have to be repaid through the sale of unallotted lands. When Leupp was informed, he referred the matter to Code, who having devised the plan believed the whole matter “extremely favorable to the Indians.” Code did make two exemptions to the land to be sold. He excluded 1,500 acres at Maricopa Colony (with Salt River Haggard Decree water rights) and 5,000 acres near Gila Crossing (with seepage water).

Code sought to irrigate 10,000 acres on the north side of the river at Santan. Even with exemptions at Maricopa Colony and Gila Crossing, 10,000 acres at Santan was too few to meet the needs of the Pima. Newell admitted this in 1905 but opined that Pima

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494 Indian Appropriation Bill, 1906, Hearings Before the Subcommittee of the Committee on Indian Affairs, January 20, 1905, Senate Report 4240, 58th Congress, 3rd Session, pp. 56-59. When asked if the water supply would continue, Newell could only state it “will probably continue.”

495 Annual Report of the Commissioner of Indian Affairs, 1904, p. 20. “[T]hese two settlements,” Code wrote Leupp, “both have a certain assured water supply even in the nominally dry season.”
farmers only needed an “average of 4 or 5 acres of good irrigated land” to support their families. This was clearly discriminatory, as non-Indians could acquire 160 acres of land under the Homestead Act or 320 acres under the Desert Land Act. The Indian Service, however, opposed larger allotments, fearing it would have to provide water to all allottees. With nearly 5,000 Pima eligible to receive an allotment, 800,000 acres would have to be allotted with some portion of each allotment provided with water if each Pima were to receive a 160 acre homestead. This was twice the size of the reservation and would require all the water of the Gila River, a plan government officials rejected as impractical and limiting efficient use of the water by non-Indians. Newell, not surprisingly, sought small Indian allotments that would keep irrigation costs to a minimum and at the same time free up water for off-reservation use.496

A year earlier, Newell submitted to Charles Walcott, Director of the USGS, a report on potential groundwater development on the reservation. With groundwater pumping in its infancy, many of the wetlands along the Gila River supported an abundance of wildlife in the many swamps and sloughs along the river. A constant discharge of water from these wetlands fed the river and kept Pima canals on the west end of the reservation flowing. Large springs near Gila Crossing, for instance, “boil[ed] up from the sand below” the river and supplied water in even the driest years.497

The perpetual water supply survived not from the surface flow of the river but from the subflow. By 1903, the river rarely flowed across the eastern half of the reservation except during flood season. With local precipitation insufficient to supply the

496 Indian Appropriation Bill, 1906, p. 58.
underflow, the water came from the subsurface flow of the river and its tributary washes. Hill estimated the subsurface flow of the Gila River to be “of an indefinite” quantity. The quantity of water that could be pumped each year was somewhere between 35,830 and 278,256 acre-feet. “There is enough water,” USGS engineer Willis Lee concluded, “if the computations be correct, at present within pumping distance of the surface to supply the Indians for twenty-eight to forty-nine years.”

Lee did not favor seepage ditches as the means of securing water for the Pima, preferring pumping plants. Ten such plants could furnish 64,350 acre-feet of water annually, more than the 40,000 acre-feet the Indian Service deemed necessary for the Pima. Based on these calculations, it was probable that water could “be drawn from the underflow of the Gila River Valley, not only to supply the needs of the Indians but to materially extend the cultivated area [of non-Indians] without exhausting the available supply.” The Pima dismissed the report, claiming Lee “made assertions that cannot be verified.”

Lee did correctly observe the east end of the reservation was not “situated in the most promising locality for obtaining water by pumping.” The best location was on the west end of the reservation, where “the most promising conditions are to be expected.” These conditions—water near the surface, a large return flow of water into the underflow

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498 The flow of water above the reservation, in 1899, was measured at 237 second feet; forty miles downstream the flow was calculated at 430 second-feet, clearly indicating that other sources of water were added to the underflow. This underflow was significant to Pima wetlands, in addition to providing irrigation water. The loss of this water supply created a huge ecological and environmental impact on the reservation, one the Community is still seeking to overcome.


500 “The Underground Waters of Gila Valley, Arizona,” page 48. The low calculation was based on a pressure gradient of 10 feet per mile or 1,360 feet per year. If the movement were 10,560 feet per year, the maximum flow would have been 278,256 acre-feet. If the maximum flow were available there would be some 238,000 acre-feet unappropriated for non-Indian uses. The emphasis is added.

501 Cook’s First Record Book, p. 102.
and the freedom of movement in the underflow—suggested that wells would be more likely to succeed here than any other location on the reservation. But wells on the west end of the reservation were not acceptable to Code. Here a large expanse of exceptionally fertile land—with easy access to well and Salt River water—was located. Wells at Santan and the consolidation of the Pima there were the only means of opening up the lands on the west end of the reservation and getting at the water west of Chandler Ranch.

Assured that there was an adequate source of water for the Pima, Congress appropriated the first funds for the Sacaton Project on March 3, 1905. In January of 1906, John Granville arrived on the reservation to begin a preliminary survey in advance of allotment. With the Sacaton Contract in place, work began on constructing an electrical line to the north boundary of the reservation. In April 1908, Congress gave the secretary of the interior the authority to enter into agreements with the Reclamation Service to build Indian irrigation projects. Using this authority, work on the first well for the pumping plant began on April 20, 1908.

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502 Indian Appropriation Act of 1906, 33 Stat. 1048. This act appropriated $50,000 to begin the irrigation project. In 1906, Congress appropriated another $250,000. See Indian Appropriation Act of 1907, 34 Stat. 325.

503 Annual Report of the Reclamation Service, 1907-1908, p. 52. See also 35 Stat. 70.
The Sacaton Project included water from the ten irrigation wells and any floodwater that might come down the Gila River. The project included the construction of three irrigation canals. The first would carry floodwater from the Gila River beginning at a point 3 ½ miles east of Sacaton. The head of this floodwater canal was at the future site of the Sacaton Diversion Dam (and Olberg Bridge), authorized in 1916. A second, smaller canal was to branch off the first canal and carry well water only. A third canal was to be constructed on the south bank and supply a limited amount of water near Casa Blanca.504

The Pima questioned the new floodwater canal. In their view, its “intake on the Gila River was at a higher level than necessary for the Indian lands to be irrigated.” This appeared to the Pima to be what was necessary to convey water to the reservation lands west of Chandler Ranch, land that Code proposed to sell. The canal itself ran along a high ridge in the north central part of the reservation before dropping through a series of grades. But then it mysteriously forked, with a smaller branch heading toward Santan and the larger fork continuing west in the direction of Chandler Ranch.505

Before the Reclamation Service began construction of the floodwater canal, the flood of 1905 shifted the channel of the Gila River, necessitating the construction of the canal head through a heavier cutting of rock than originally planned.506 Without a

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controlling dam at its head, the Pima constructed a brush dam to capture available floodwaters. In 1911, this head washed away three times. Even though the year had been “extremely favorable in respect of flood water,” the Pima received little benefit “on account of there having been no means of controlling” the water for irrigation. The Reclamation Service informed the Indian Service that if it wanted a dam it would have to supply it.507

The Pima first learned of the Code scheme in 1904 and “it came,” Cook scolded Leupp, “like a thunder clap out of the clear sky.” At first the Pima refused to believe Cook’s claims. Then, the missionary lamented, the Indians learned “the plot had been laid secretly.” Any scheme to rob the Pima of their land would be opposed, as the land proposed to be sold “can be irrigated from the Tonto Reservoir and the Gila and Salt Rivers,” a fact “well understood by those who advocate the sale of these lands.” This “explain[ed Code’s] haste and secret endeavors,” Cook chided the commissioner.508 Despite such plans, the Pima refused to move. “[T]hey just stayed wherever they were,” Pima elder Lloyd Allison noted, “at Casa Blanca, Bapchule and those villages.”509

The Pima also rejected Code’s proposed five-acre allotments as some Pima growers cultivated sixty or more acres.510 In March 1906, Antonio Azul informed Leupp the Pima needed “enough water to irrigate from 25-30 acres to the family” and additional land to grow crops to sell and provide the people with firewood, pastureland for their

509 The White Man’s Friend, p. 12.
510 Hearings before the Committee on Expenditures in the Interior Department of the House of Representatives on House Resolution No. 103, Part 17, p. 671.
animals and access to natural desert plants, such as wild spinach and cactus fruit. Leupp responded the Indian Service was “doing all in its power to get irrigation for that amount of land for each family.” Nonetheless, Leupp was surprised to learn the Pima still opposed groundwater. “I beg to assure you that if water cannot be procured through pumping,” Leupp warned the chief, “it will be impossible to obtain irrigation for the Pimas.” The Commissioner further informed Azul he was “not aware of any movement on behalf of whites to take your land. Unless it can be irrigated by pumped water, it is not worth the taking.”

The following year, Azul informed Garfield that the Pima needed thirty or more irrigated acres of land for each family. Hugh Patten, a Pima businessman and former school teacher, dispatched a letter to Leupp on behalf of Azul and the village chiefs, again requesting river water that would fertilize the land to produce good crops. In response to the cession of land, the chiefs explained the Pima had “no land to spare as Mr. Code thinks.”

Azul penned another letter to Garfield, expressing his view that the Pima were “willing to pay our share for good river water.” Nonetheless, the aged chief opined, government engineers had sent in false reports “in order to rob us of our lands.” When Patten and fellow Pima Lewis Nelson traveled to Washington, D.C., in 1908 to personally object to groundwater and allotment, they were forbidden to leave the

511 “Letter of F. E. Leupp, Commissioner of Indian Affairs, to Chief Antonio Azul,” through the Pima School, dated March 27, 1906, in _Cook’s First Record Book_, pp. 80-81.
513 “Letter from Antonio Azul and all the Subchiefs, written by Hugh Patten, to the Hon. Commissioner of Indian Affairs F.E. Leupp,” dated Sacaton, July 30, 1906, in _Cook’s First Record Book_, p. 108.
reservation. Assistant Indian Commissioner A. C. Tonner told the men, “The Indian Office [will] look after [your] interests.” The men were also disallowed “to meet with and talk to Government officials who came to our reservation.” Government officials effectively disenfranchised the Pima. Garfield did, however, agree to postpone allotment. “In the future,” the secretary promised, “when the extent to which the lands can be irrigated is made known the question of separate allotments can be taken up in council with your tribe, if it at that time is so desired.”

The Pima stood on another precipice in 1908, fearing not only the loss of 180,000 acres of land and their rights to the low water flow of the Gila River but also their traditional economy and means of farming. Having grown increasingly frustrated at the lack of responsiveness of the Indian Service, nine Pima men sent a petition to the Indian Rights Association seeking its assistance in defining Pima water rights. Within their petition, the men declared their steadfast opposition to being “moved from our homes,” seeking instead to have “water supplied to our farms as they are at present situated.” They also demanded that their rights to the “natural low-water mark flow” of the Gila River—or as much “as we were accustomed before it was all stolen from us”—be protected.

As importantly, the chiefs requested their sovereignty be respected and that a representative of the United States Government “confer with us … to examine the conditions pertaining to land and water on this reservation.” To date, Antonito Azul, the chief’s son, and Sacaton Flats Chief John Hays complained, “we have had no voice in the

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516 “A Petition Addressed to the Indian Rights Association by the Chiefs of the Pima Tribe of Indians,” dated July 31, 1911, in Conserving the Rights of the Pima, p. 10.
matter at all,” having been “continually overreached by Engineer W.H. Code, who has attempted to force a system of irrigation upon us.”

On December 16, 1911, Antonito Azul appealed directly to the United States Congress. “Some 20 years ago and all the time before that date we, the Pimas, had all the water needed to irrigate our farms, and we had no difficulty in making our living. Since that time, unless the rainfall was great, we have had to suffer more or less for the necessaries of life.” After the assassination of President McKinley, Azul continued, Code “persuaded [the] Government to build the Tonto (also called the Roosevelt) Reservoir at a great cost. [He] also persuaded the Government to build electric power pumping plants, at a great cost, in order to supply [us] with worse than worthless well water.” The Pima understood what the alkali-impregnated groundwater would do to their farms. They had water samples analyzed and sent Lewis Nelson and Hugh Patten to Washington, D.C., only to discover the Indian Service and the Reclamation Service “would not listen to our people.”

Two weeks later, Azul penned “An Appeal for Justice” to the “People of the United States,” describing how Superintendent Alexander “place[d] himself across the Pimas’ path, between him and his river water.” Soon after, Code was appointed irrigation engineer. “We have not the papers to show just what the speculators and politicians of the Salt River Valley had to do with the appointments of Agent Alexander and Engineer Code, but the events which followed speak loudly.” The appeal then described how the Phoenix schemers “decided upon … the Salt River Valley instead of the Gila River

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517 Ibid. The petition is signed by John Hays, Chief of Sacaton Flats Reservation; Antonito Azul, Head Chief of the Pima Nation; Chief Henry Austin; Chief James Tompson; Chief Henry Adams; Chief James Hollen; Chief Thomas; Juan Jackson; and Haveline Enas.

Valley” for the first reclamation project. After the Indians were promised water from the Salt River project, Code immediately began speaking of ground water for the Pima. More importantly, Azul lamented, Code and Alexander never told the Indians of their “right to good river water without expense.” Azul appealed to Congress and the American people to “come to our aid.”

At the request of the Pima, Samuel M. Brosius, of the Indian Rights Association, encouraged the House of Representatives to investigate the activities of Newell and Code, as well as the general expenditure of irrigation funds on behalf of the Pima. Brosius explained how Code sought to allot land in Gila Crossing but then changed his mind with “the completion of the Roosevelt Reservoir [as] all the cultivable land … at Gila Crossing can now be supplied with Salt River impounded water.” Once considered of little value, the land had “much speculative value.”

Brosius distrusted Code, questioning why he “want[ed] the [Gila Crossing] Indians to abandon [1,500 miner’s inches of water] in order to get a similar amount of pumped water from the wells at Santan?” Furthermore, seepage water at Gila Crossing and Maricopa Colony was equivalent to the output of seven pumps in Santan. With the cost of each pump $10,000, why was this money not used to extend the electrical power line and “augment the natural supply of water at Gila Crossing with three or four wells?” As Brosius reasoned, the wells were put in at Santan and not Gila Crossing so that non-Indians would “get the natural flow of good river water and the Indians [would] get the

519 Ibid, pp. 4-8.
520 Ibid, p. 12. Brosius claimed “The whites are very anxious that the land at Gila Crossing at present occupied by the Indians should be opened for settlement and are only waiting for a chance to rush in.”
electricity” to pump inferior quality well water. Through the “aid of some unscrupulous officials” the Pima stood to lose much more than their land.\(^{521}\)

With regard to the “Casa Blanca Indians,” there was a concern they, too, might be relocated to Santan. While Code initially agreed they should receive allotments at Casa Blanca, by 1909 he was of the opinion they should remove to Santan—with children potentially receiving allotments on the south side of the river near Casa Blanca.\(^{522}\) Code even suggested, “the Blackwater Indians would have to be moved.”\(^{523}\)

The Pima were not amused with this scheme. In the summer of 1909, Antonio Azul convened another meeting of the village leaders “for the purpose of sending in a strong protest to Washington.” Azul and village chiefs Juan Jackson and Vanico continued to protest to Garfield. The chiefs’ major objection was the uncertainty of water in the Gila River. They understood that the proposed allotments were insufficient to enable them to make a living by agriculture and stock raising as they had done heretofore. Pima protests to the Indian Service made clear they wished to remain self-sufficient. Azul explained the Pima were willing to part with surplus land as soon as the government demonstrated “that we can make a decent living without such lands…. We object to being made paupers and ration Indians merely to benefit a few bad white men.”\(^{524}\)

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521 Ibid, p. 15. It appeared to the Pima that the reason for the scheme was “The whites want the land at Gila Crossing and are determined to have it at any cost and by any means.” Nelson’s fears are discussed and found in Report in the Matter of the Investigation of the Salt and Gila Rivers—Reservations and Reclamation Service, p. 18.

522 Code told the House Investigating Committee that only “those that desired to move” would have to relocate. See Hearings before the Committee on Indian Affairs, House of Representatives on H. Res. 330, p. 674 See also page 671, where Code explains why children were to be allotted on the south side of the river.

523 See “Letter from Special Allotting Agent Charles E. Roblin to Herbert Marten, Pima Agency Financial Clerk,” dated June 2, 1911, in ibid, p. 16. Code’s comment on Blackwater is found on ibid. No 2, p. 53. Code told the House Committee on Indian Affairs “If those Indians are not willing to [relocate], I presume there are many Indians who would be glad to come,” including the landless Papago.

Despite Pima concerns, Commissioner Robert Valentine, who succeeded Leupp in 1909, ordered allotting agent Charles Roblin to allot each family ten acres, five for married men and five for married women. This was rationalized on the basis that limited water supplies could be spread across smaller allotments. Minor children would be allotted in the future unless considerations should “cause such course to be impractical.”  

This ambiguity caused the Pima more concern, leading many to conclude that children would not be allotted at all. In the meantime, Cook informed the Presbyterian Board of Home Missions that he “had more calls from the hungry than at any [other time in the] twenty years during my stay here.”

The conservative Board of Indian Commissioners even adopted the position of encouraging Valentine to restore the natural flow of the Gila River so as to enable the Pima to once again farm the land, “regardless of any injustice or alleged injustice to whites farther up the river.”

Lewis Nelson also lamented how Code (or Alexander, they each blamed the other) ordered the closing of the Little Gila River, in 1904, denying water to Pima farmers south of the Gila River. The Little Gila for centuries had served as the main conveyance channel delivering water to the fields between Blackwater and Sweetwater. Its head on the Gila was low and allowed the low water flow to enter its bed to be carried west fifteen miles to fields south of the river. By closing the Little Gila, Code hoped to persuade the Pima they were without water and that groundwater in Santan was the only option. He disguised his scheme by ordering the closure of the Little Gila as a matter of

525 “R.G. Valentine, Commissioner, to Charles E. Roblin, Special Allotting Agent,” April 29, 1911. In Conserving the Rights of the Pima Indians, pp. 20-21. If there were any irrigable land left over after allotment, five-acre tracts were to be allotted to single males, “preference given to those able to utilize the allotment.”


public safety. Both the agency farmer and experimental farmer characterized the closing “as an outrage.” Loss of this important water conduit caused more distrust, but it did not persuade the Pima to accept the pump scheme.528

In July, in response to continued Pima complaints, the Indian Service withdrew its preliminary allotment plan. “The Indians at Gila Crossing and Casa Blanca will be permitted to take allotments where they are now located,” Assistant Indian Commissioner C.F. Hauke informed Alexander. “But if they want allotments where water is now developed they can be allotted [at Santan]. Please make it clear to everyone that the place of allotment for each Indian is within his or her selection.” In a follow-up letter, Hauke stressed that wherever there were “settlements of Indians in large numbers enough and under favorable agricultural and irrigable conditions, every effort possible will be made to bring water to them where it can be done at a cost that would not be nugatory of all other efforts.”529 Valentine visited the Agency in October and promised to oppose any “plan to try to induce the Casa Blanca Indians to move over into the Santan District.”

Herbert Marten, an outspoken advocate of Pima rights and financial clerk at the Pima Agency, played an important role informing Congress about irrigation matters on the reservation. Contrary to what Code stated, Marten told the House Committee on Indian Affairs, surface water could “be conducted down [canals] for the irrigation of Indian lands on the reservation.” Despite Congressional beliefs that all the Pima had been

528 Report in the Matter of the Investigation of the Salt and Gila Rivers—Reservations and Reclamation Service, p. 35. See also The Annual Report of the Board of Directors of the Indian Rights Association, 1913, p. 20. The Little Gila was reopened in 1913 after Code had resigned and Alexander had been removed as superintendent.

529 Hauke telegram to Indian School, Sacaton, Arizona, July 10, 1911, and Hauke to Pima Agency, both reprinted in, Conserving the Rights of the Pima Indian, p. 16.
or soon would be provided with water, Marten informed the Committee that only about 800 Pima had access to water. Nearly 80% were yet without a supply of water.\footnote{Hearings before the Committee on Indian Affairs, House of Representatives on H. Res. 330, p. 15.}

Furthermore, while $540,000 had already been appropriated for wells and electrical power, Marten estimated that another $1,000,000 would be needed to complete the Sacaton Project. Adding in the estimated $35,500 annual operating expense (estimated at $3.55 per acre) and the costs were staggering. “It will be a great hardship and it is believed a practical impossibility for the Indians to meet the annual payments for electricity alone.” When maintenance charges were factored in, “instead of being made self-supporting, as the government contemplates, [the Pima were] likely to be pauperized and ruined.” Cook estimated these consequences cost the Pima $380,000 per year.\footnote{Cook’s First Record Book, p. 105. Cook determined losses as follows: 180,000 acres of land @ $1,000,000; pumping plants @ $600,000; Reclamation Service work to date, $50,000; running the pumps for five years, $50,000; damage to the land from well water, $1,000,000; loss to the Indians from lack of water, $1,000,000; and feeding Indians unable to support themselves, $100,000. The total was $3,800,000 over ten years or $380,000 per year. “At the end of 5 to 10 years they will be poorer than ever.”}

As to the groundwater scheme, Marten suggested the water was not only expensive but also “contain[ed] dangerous quantities of alkali.” If it were used exclusively, groundwater would “ruin the land” within a few years.\footnote{Hearings before the Committee on Indian Affairs, House of Representatives on H. Res. 330, p. 9.} Nelson, writing to Congressman John Stephens (D-TX), a member of the House Committee on Indian Affairs, asked why the Pima should be asked to experiment with groundwater “when the Gila River water, to which we are already entitled, would make experiment unnecessary.” Surface water, Nelson reasoned, “is in no way an impossibility, and we know that it is the best and most practical system.” The Pima will “some day stand side by side with our
white brother in thrift and culture,” Nelson added. “To place us at a disadvantage now may mean the loss of hope, and when hope is dead the man is dead.”

To support their assertion, the Pima contacted Professor W.H. Ross of the University of Arizona to conduct an analysis of the water. Ross concluded that “water containing 100 parts … of soluble salts per 100,000 parts of water would carry on to the land 8,167 pounds of salts per acre in one year.” Based on his analysis, groundwater would damage the soil in “a very few years.” Even as little as 68 parts per 100,000 could damage the soil. Two of seven wells tested exceeded this level, with the remaining five averaging 52 parts per 100,000. Could it be, Marten inquired, that the pumping scheme was more for the “interests of the [Salt River Valley] Water User’s Association than of the Government or Indians?” Besides, “It would have been equally feasible to have bought impounded water from the Roosevelt Reservoir for the Indians’ lands … as to have bought electricity.”

Valentine was unconvinced and informed the House that the reports indicated the absolute safety of using groundwater. Hill admitted the groundwater was salty but safe for irrigation purposes, especially if mixed with floodwaters. By 1911, Valentine reported that over 4,500 acres were being irrigated on the north bank of the river in the Santan district and that “the main canals are now built above 10,000 acres.”

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533 "Letter of Lewis D. Nelson, Representing the Pima Tribe of Indians, Sacaton, Arizona, to the Honorable Jno. H. Stephens, Chairman, Committee on Indian Affairs," January 4, 1912, in Hearings before the Committee on Indian Affairs, House of Representatives on H. Res. 330, No. 2, pp. 26-27. The Board of Indian Commissioners reported in 1909 “the steady increase in solids in the water of the Government well at Sacaton alarms all who are watching the experiment of irrigating the Pima lands.” See Annual Report of the Board of Indian Commissioners, 1909, p. 10. See also Conserving the Rights of the Pima Indians, pp. 3, 32.

534 Timely Hints to Farmers, Pamphlet No. 30 (University of Arizona Agricultural Experiment Station, 1910).

535 Hearings before the Committee of Indian Affairs House of Representatives on H. Res. 330, pages 21-24. The seven wells tested contained 48.0, 53.8, 56.2, 52.1, 52.6, 76.0, and 69.0 part salt per 100,000. Six of the wells contained “medium to high salinity water.” Five of the wells contained medium sodium water.

Service noted that while the Indians “with few exceptions refused to use well water” in 1912, they were using it with “remarkable success” by 1913. Use of the water restored some confidence, but while the Pima were forced to use groundwater, they continued to oppose it. Tribal leaders Kisto Morago, Lewis Nelson, Harvey Cawker and Jackson Thomas complained that they had no voice in the pumping scheme. “The water rights in the Gila River appear by consensus of legal opinion to be still ours, and such water would cost us nothing,” the men argued. A month earlier, 444 Pima signed a petition appealing to the Senate to restore “our river water.”

Three months later, a House Subcommittee on Expenditures in the Interior Department launched its investigation of the reclamation activities in the Gila and Salt River Valleys. Besides implicating A.J. Chandler and a score of other Salt River Valley speculators, the Committee concluded the Reclamation Service had indeed gone “into the hands of big land speculators.” Leupp testified illness had robbed him of his memory and he could no longer recall any of the “thousands of details” pertaining to the scheme.

Almost immediately, the Reclamation Service turned over its Indian Country activities to the Indian Irrigation Service.

537 Hearings before the Committee on Expenditures in the Interior Department of the House of Representatives on House Resolution No. 103, No. 5, Part 5, p. 125 and part 15, pp. 628-29. “The Indians at first were not interested and objected,” Hill told members of the House Investigating Committee, “they did not like it, but after the water got pretty low in the river they saw it would be advantageous to get the water to their lands in order to save their crops and since then have been getting as much as they could.” Annual Report of the Commissioner of Indian Affairs, 1911, p. 17. There were 10 completed pumping stations “augment[ing] the flood waters of the river.” Reclamation Record (Washington, DC: Secretary of the Interior, United States Reclamation Service, July 1913) 4:7, p. 137.


539 Hearings before the Committee on Expenditures in the Interior Department of the House of Representatives on House Resolution No. 103, Part 1, p. 92.

Marten also testified before the subcommittee, which listened as the Pima questioned the intent of the new Santan Floodwater Canal, which they believed was heading toward Chandler Ranch. From the Pima perspective, the $286,126 Santan Floodwater Canal was a waste of money unless it was designed to provide “a large supply of water” to Chandler Ranch. The Sacaton Contract was particularly scrutinized as it seemed “to render all of the reservation, with the exception of 10,000 acres, entirely valueless to the Indians so that they will in self-defense have to sell this excess.” To fulfill the contract would be a burden. Rather than testify, Code resigned from government work.

The USGS continued evaluating both the physical location of the San Carlos reservoir and the maximum acreage it could support. In 1909, M. O. Leighton, chief hydrographer of the USGS, turned the idea of reclamation upside down, suggesting the factor that determined the feasibility of an irrigation project was not the “abundant but the scarce years of water supply.” Leighton did not recommend a project be built to irrigate more land than the average irrigated acreage during the drought of 1900 to 1904. Anything beyond this would risk insufficient water. With the average water use on the middle Gila River during these years just 140,200 acre-feet, Leighton recommended no more than 40,000 acres of land be irrigated from San Carlos. Engineer F. E. Herrmann cautiously concluded the actual safe yield was just 24,000 acres of land.

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541 Report in the Matter of the Investigation of the Salt and Gila Rivers—Reservations and Reclamation Service, p. 171 and 174. It was reported (hearsay) that Chandler wanted floodwater to mix with the groundwater he was pumping. Outside of the delivery area of the Salt River project, Chandler only had rights to electrical power to pump groundwater. Floodwater would dilute the alkaline rich groundwater.

542 Report of M.O. Leighton, February 8, 1910, in San Carlos Irrigation Project, Arizona: Report to the Secretary of War of a Board of Engineer Officers, United States Army, under Indian Appropriation Act of August 24, 1912, on San Carlos Irrigation Project, Arizona, House Document 791, 63-2 (Washington, DC: GPO, 1914), p. 16. Leighton’s estimates for irrigation were between 32,200 and 43,000 acres. The former was based on 4.355 acre-feet of water per acre, while the latter was based on a 25% margin of non-productive land.
While the Geological Survey adopted a conservative approach to reclamation, consulting engineers James Schuyler and H. Hawgood did not. In dry years, when storage water was low, Schuyler argued, groundwater pumping could supplement the reservoir supply.\(^{543}\) Other studies supported a maximum water use of 260,000 acre-feet and no more than 65,000 acres. Most of these studies assigned the Pima one-third of the water, since “there is known to be a copious supply of underground water” on the reservation.\(^{544}\) The government continued to assume that beneficial use of the water by non-Indians had preempted Pima rights. Nonetheless, the USGS concluded that the Sacaton Project, which utilized groundwater and floodwater (when available), could irrigate 12,000 acres, with approximately 21,500 additional allotted acres irrigated with stored water, bringing the potentially irrigated lands on the reservation to 33,500 acres.\(^{545}\) Schuyler was of the opinion that the Florence Canal could convey a maximum of 108,000 acre-feet of water seven years out of ten, enough to irrigate just 12,000 to 25,000 acres of land.\(^{546}\)

When the Army Corps of Engineers was directed by Congress to evaluate the San Carlos site in 1912, it concluded that a 180-foot tall dam could impound 709,626 acre-feet of water at a cost of $2,104,000.\(^{547}\) The Corps calculated the average annual discharge at San Carlos at 346,568 acre-feet. A low volume of 99,936 acre-feet occurred

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\(^{544}\) Report of J. H. Quinton, September 11, 1909, in ibid. Quinton estimated 46,000 acres could receive three acre-feet of water per year and that an additional 50,000 acres might receive 1.5 acre-feet per year (enough for one crop). In 1912 he further revised his estimates. See also Report of J.H. Quinton, September 3, 1912, in ibid, p. 17. See also “Reservoir site at San Carlos: Report of William H. Rosecrans,” 1912 in ibid, pp. 18-19.

\(^{545}\) William H. Rosecrans, Irrigation of the Pima Indian Reservation, Gila River Valley, Arizona, January 4, 1912, in ibid, p. 19.

\(^{546}\) J.D. Schuyler, Water Supply and Proposed Irrigation Works of the Pinal Mutual Irrigation Company of Florence, Arizona, December 5, 1911, in ibid, pp. 19-21. This led credence to the need for a reservoir upstream and a diversion dam downstream.

\(^{547}\) San Carlos Irrigation Project, Arizona: Report to the Secretary of War, pp. 24-26. Secretary of War Lindley S. Garrison appointed Lt. Col. William C. Langfitt, Lt. Col. Charles H. McKinstry and Major Harry Burgess to conduct the study. The Board of Engineers convened in Phoenix on November 12, 1912, and spent the next week visiting the Pima Reservation, Florence, Upper Valley towns and the proposed dam site.
in 1902 with a high mark of 1,011,082 acre-feet in 1905. The low average runoff and the extremes between high and low volume concerned engineers. But of a far greater concern was the length of time during which the annual run-offs were “continuously below” the average. The years 1898-1904 and 1908-1910 were all below average flows. While the dam could store more than 310,000 acre-feet of water, the Corps did not believe it prudent to plan more than that amount being stored in any given year. Using conservative estimates, no more than 200,000 acre-feet should be used annually, with two acre-feet of water allocated per acre.548

With water to support 90,000 acres of cultivation, the Corps of Engineers recommended 122,222 acre-feet of water be set aside for 55,000 acres of land south and east of the reservation and 77,778 acre-feet of water be assigned to the Pima Reservation, again demonstrating that the government sought to integrate the Indian and non-Indian economy. The Corps adopted a plan to irrigate 40,000 acres on the reservation. Of this,

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548 Ibid, p. 46. The less water available, the Corps argued, “the more thorough and laborious the methods of cultivation.”
10,000 acres were under the Sacaton Project with 20,000 acres to be supplied with stored water on the south side of the river. Since the Santan area had groundwater, an additional 10,000 acres on the north side of the river was to receive just one acre-foot of water per acre.549

In the spring of 1910, Alexander proposed ten-acre allotments for the reservation.550 Seeking to limit the expense of a costly irrigation system, the federal government advanced 10-acre allotments with each allottee receiving an irrigable tract of land to provide for his needs. Such lands, however, would provide only subsistence cropping rather than enabling the Pima to reenter the commercial market as they had done when they had sufficient water. In November, the Indian Service tentatively adopted a plan to allot each Pima five acres with assured water rights, five acres with possible water rights and 40 acres of grazing lands.551

By the spring of 1911, Valentine, desperately wishing to allot the land and emancipate the Pima from federal supervision, made preliminary plans for irrigable allotments. In April, he dispatched a letter to new allotting agent Charles E. 552

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549 Irrigation engineer Charles Real Olberg and Superintendent Frank Thackery requested water for 50,000 acres based on the projected population of 5,000 Pimas and Maricopas and an allotment of 10 acres per person. The Army Corps of Engineers adopted the latest (1912) population count of 3,996 in coming up with 40,000 acres (10,000 of which would receive just one acre-foot per acre). See ibid, p. 47.
550 “[W]hy are not whole families allotted together at San Tan until all that land has been allotted?” S. M. Brosius inquired. Then allot on the south side of the river near Casa Blanca. See Conserving the Rights of the Pima Indians, p. 17. Code continued to push allotment of children on the south side of the Gila as part of some future project. See Hearings before the Committee on Expenditures in the Interior Department of the House of Representatives on House Resolution No. 103, pp. 671-674.
Roblin directing him to “bring sufficient irrigable land within the reservation under ditch to afford allotments … of at least 5 acres.” Allotments would be given to heads of families, their spouse and adult children only. Those not old enough to use their allotment were to have their right protected and would receive land in severalty at a later date from land “not yet under water.”

Concerns over water again postponed allotment and it was not until 1914, after the Army Corps of Engineers certified the feasibility of San Carlos reservoir (and assured water for irrigable allotments), that the first temporary allotments were made. That year there were 1,661 allotments made, totaling 16,632 acres of land. In 1915, another 1,492 allotments for 14,920 acres of land were made and another 1,733 allotments totaling 23,930 acres were made the following year. In 1917, another 3,407 allotments for 33,737 acres of mostly grazing land were made. By the end of 1917, 4,886 irrigable allotments were made. None was yet approved pending confirmation of water rights. Secondary, non-irrigable allotments (grazing) were being prepared “as rapidly as possible.”

When the allotments were made they were forced on the Pima. “No consideration was taken by the allotting agent,” Pima elder Lloyd Allison remembered, as “to the location the Indians had lived and farmed in.” The allotments were simply drawn up on paper. Most Pima did not reject moving to an allotment, but feared the allotment

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process. It was what was on the “other side of the allotment paper” that concerned the Pima. Since many Pima were assigned land that was already occupied by others, they agreed to informal exchanges with “the new allottee [being] charged whatever the old owner thought the crop, wire, fences, etc., on the land they left was worth.”

By 1916, Superintendent Ralph Ward optimistically reported young Pima farmers were “making all haste to get these new allotments under cultivation.” But in the first sign of the changing economics of Pima farming, there was a growing need for capital resources. Ward noted the Pima were “handicapped in this matter considerably.” The Pima, expecting time to transition from years of deprivation and quasi-traditional methods of farming, were rapidly being thrown into the foray of intensive agriculture needed to compete economically with their non-Indian neighbors. Needing capital to compete, the Pima were discovering it was difficult to farm under the new system. As allottees died, the already small allotments were fractured, with heirship compounding the matter. Notwithstanding challenges, two Pima farmers leased non-Indian land “outside the reservation.” As of yet, none of the reservation land was leased.

The leasing situation changed in 1917, when Lincoln Fowler, a Phoenix farmer and entrepreneur, leased 2,500 acres of allotted land along the northern boundary of the reservation with Tempe. With the assistance of former Superintendent Frank Thackery,
Fowler leased 250 ten acre allotments made at the direction of Cato Sells in 1917. Working with Sells, Thackery and Congressman Carl Hayden, Fowler had knowledge Maricopa County Drainage District No. 1 (Tempe) had incorporated in 1914 for the purpose of draining groundwater and tailwater from land being reclaimed in south Tempe. With the agricultural boom in the Salt River Valley, land was at a premium, with the remaining sloughs and other wetlands being drained by 1915. The water was drained via what came to be known at Fowler’s ditch (now Gila Drain).\textsuperscript{557}

The drainage ditch was completed in May 1917 and on September 20, Sells signed an agreement with Drainage District No. 1 giving the United States Government control of the drainage water. Since Pima allotments could be legally leased subsequent to 1910 under an amendment to the General Allotment Act, the era of leasing Indian land began. Fowler proposed the Tempe drainage water be used on the 2,500 acres he subleased to non-Indian farmers in the area due north of Lone Butte. Superintendent Ward then signed eight-year leases on behalf of the Pima landowners and, by March 1918, work on the Fowler ditch began.558

The Fowler lease demonstrated the changing nature of land severalty. Rather than benefit Pima landowners as the original allotment act intended, the allotment act was manipulated—in light of the National Reclamation Act initiating a race to put all arable land under irrigation—by the U.S. Government, which then asserted rights to the water from the Salt River Valley to benefit Fowler (and eventually other lessees). Pima land, rather than being farmed by and for the benefit of the Pima, was instead leased and made productive by non-Indians to the benefit of the national economy. The transformation of Indian land was complete.

Allotment was largely completed by 1920, with the first trust patent issued to Antonio B. Juan on June 25, 1921.559 By 1922, 4,894 Pima and Maricopa (and some Papago) received trust (restricted) patents to two ten-acre allotments within the reservation.560 The first was for a ten-acre irrigable allotment referred to as an A, or

558 United States of America vs. Henry A. Wattson and Carrell A. Spicer, in the District Court of the United States in and for the District of Arizona, National Archives and Records Service, Pacific Region (Laguna Niguel), Equity case Files, Folder E-31, Box 3.
560 Annual Statistical Report, 1922, Statistical Section, pp. 6-7. There were actually 5,176 Pima, Papago and Maricopa who were allotted, 282 of whom did not receive a trust patent. There were an estimated 824 members (270 children and 554 adults) that had yet
primary, allotment with rights to water. The second was for a ten-acre non-irrigable grazing allotment referred to as a B, or secondary, allotment with no assurance of water. Because of the restricted status, the land could not be sold, mortgaged, taxed or otherwise encumbered for twenty-five years.

When the allotment book was closed on the reservation, more than 96,000 acres was allotted in severalty. Some 7,693 acres was farmed, with an additional 18,500 acres waiting for water. By 1922, 1,654 allotments were “under ditch.” The largest Pima farms were Jose Mendoza (100 acres), Jack Stone (96 acres), Lewis Porter (60 acres), Frank Armstrong (55 acres), Pancho Lopez (54 acres), Joseph Smith (52 acres), John Jones (50 acres), Jose Kalka (50 acres) and Ed Wood (50 acres). Many others farmed between 30 and 50 acres, growing wheat, barley, alfalfa, corn, cotton, beans, squash and a variety of garden crops.

While the Pima were willing to work the land once canals and ditches were constructed, nearly half of the irrigable allotments for which ditches and turnouts were constructed were “unfit for the purpose for which [they] had been allotted.” Soil analyses to be allotted in 1922. Some of these were removed from the allotment schedule due to duel enrollment, death, or other eligibility requirements. The 1921 Annual Report of the Commissioner of Indian Affairs erroneously lists 4,869 allotments were approved.

561 See Annual Statistical Report, 1922, p. 42.
indicated these lands contained “excessive amounts of alkali” and were condemned.\textsuperscript{563} Agency Superintendent Albert Kneale admitted that allotment and the irrigation system were “idle gestures.” The Indian Office, Kneale opined, “must have known in advance that neither singly [n]or collectively could they have any effect upon the water situation or upon the financial status of the tribe.”\textsuperscript{564} Excessive alkali necessitated a survey to locate an additional 25,000 irrigable acres of in-lieu land so allottees that had lost some or all of their original irrigable allotment could exchange it.

Some Pima allottees received two ten-acre allotments within an area designated as irrigable, while some received two non-irrigable allotments (outside the designated project area). Since every eligible member was entitled to ten acres of irrigable land, the only solution offered by the Indian Service was to “effect exchanges of allotments,” something that was accomplished with “an immense amount of labor.” With the exchanges came another expense: “the enlargement and revamping of the entire irrigation system.”\textsuperscript{565} A visual reminder of this remains as scores of old canal turnouts and check structures lay abandoned in the desert.

While the Pima successfully thwarted Code’s scheme to “rob them of their land,” they were unable to stop the economic transformation occurring within the reservation. Rather than follow existing land divisions and local land customs, allotting agents laid new subdivision lines that followed the township structure. Rarely did an allotment correspond with the old system of fields and canals. Areas that had been farmed with

\textsuperscript{565} \textit{Annual Statistical Report 1934}, p. 6. Since many of these substitute lands were “outside the existing canal system, it followed that the selection of these substitute lands” required the expansion of the canal system. Kneale, p. 397.
river water for centuries, such as Sacate and Snaketown, were without water as the new canals and irrigation system were built. Families living in these traditional farming areas had little choice but to “go from place to place” looking for work. Nearly 7,000 acres of cleared allotted land was without water—and a crop—in 1922. Overall, the amount of land in production decreased 2,600 acres, a great source of discouragement to the Pima.

Despite hardships, some 575 Pima and Maricopa farmers cultivated 11,860 acres of land using ground, flood and seepage water. Owing to drought conditions and new canals bypassing old fields, Pima farmers in Sweetwater, Bapchule, Sacate and Snaketown—once the heart of Pima agricultural production—“were unable to farm their land.” In Casa Blanca, 2,571 acres were planted but no crop grew due to insufficient water. While farmers in the Santan area managed to plant a crop, their grain yield was poor. In Santa Cruz, 1,500 acres of productive land was divided into 75 twenty-acre farms, but lack of water prevented its development, much to the chagrin of the Indians.

By 1921, the economic structure of the reservation—already dynamic—had shifted considerably. Once in control of all their lands, the Pima now owned land in severalty. Pressure to farm using modern farming methods proved costly. While development of a new irrigation system was designed to make the Indians self-sufficient, in reality it made them more dependent. The Indian Service expected to see a return on the investment it had made in the land. Congress wanted the expense of the irrigation project repaid. Indeed, the Army Corps of Engineers expressed the sentiments of many in

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567 Irrigation on Indian Reservations. The engineers noted allotments should have temporary and made permanent only after the irrigation system was completed and the land put to use.
1914, when it recommended all eligible Indian land not farmed by the Pima be “leased to white farmers or otherwise farmed.”

The Pima were strongly opposed to leasing their land for fear they would become vagabonds in their own homeland. Some allottees prophetically saw the day when “outsiders would one day farm [the] land because of our lack of financial resources.” Having survived the years of starvation, the Pima did not desire federal paternalism. They did not seek to abandon “habits of thrift” and they did not wish to drift into “indolence and crime” because of changing economics on the reservation.570 While the Pima were unified in their opposition to leasing their lands, powerful forces remained at work. A socio-political construct predicated on the Social Darwinian “survival of the fittest” mentality justified dispossession of Pima resources. If the Pima could adapt to this changing reality, they would survive. If they could not, Social Darwinism demanded that their resources be turned over to someone who could.

With thousands of settlers now living above the reservation, the Pima faced a monumental fight in protecting their water. After nearly thirty years of requests, the Indian Service finally agreed to quantify and assert Pima rights to water. While masked behind a thin veil of morality, this assertion of rights was in reality a ploy designed to further integrate Pima resources into the local and national economy. In the following chapter, I consider the federal proposal to quantify current and previous areas of Pima cultivation in order to quantify water the government might claim on their behalf.

The adjudication survey, as it came to be known, was the first official attempt to quantify water users along the Gila River, demonstrate the extent of Pima agriculture and analyze Pima claims to the water. Despite the 1908 affirmation by the U.S. Supreme Court of the doctrine of Indian reserved water rights, the Indian Service bowed to political pressures and avoided any conflict with non-Indian landowners. Consequently, the Indian Service subscribed to the legal theory that the Pima were subject to state prior appropriation laws and that protection of Pima water through actual use was the most prudent policy.
CHAPTER 8

“ABANDONED LITTLE BY LITTLE”
THE 1914 PIMA ADJUDICATION SURVEY

At the turn of the twentieth century, settlers were living above and adjacent to the Pima Reservation and, by the 1920s, cultivated 142,322 acres in the Salt River Valley, 35,000 acres between Florence and Casa Grande, and 18,000 acres in the Casa Grande Valley. Legislation enacted by Congress assisted these settlers in acquiring and developing the land and required them to make bona fide application of water in order to perfect their land titles. These federal requirements put settlers in direct competition with tribal nations over control and use of the waters of Western streams. In the end, the rights of tribal nations were rendered n’importe as politically well-heeled settlers, government bureaucrats and Congressional allies asserted control over the water.

In the midst of these activities, the Indian Service made a belated, but ineffectual, attempt to assert the rights of the Pima. In 1914, an adjudication survey quantified Pima water use and irrigated lands in an attempt to protect Pima water. This assertion was in reality a ploy designed to use the Pima to benefit local non-Indian interests, as Congress tied support for Pima water rights and development directly to the broader policy of incorporating the Indians into the American polity. Not surprisingly, Congressmen such

as Carl Hayden (D-AZ) saw an opportunity to cultivate these sentiments to the benefit all farmers along the Gila River, especially those in Pinal County.\(^{573}\)

In 1913, irrigation engineer Charles Olberg proposed surveying the reservation to determine the current and previous level of cultivation. This survey would quantify an amount of water the government might claim on behalf of the Pima. Confident Congressional sympathies would side with the Pima, Arizona’s Congressional delegation sought to use the survey to propose a legislative package that would extend the benefits of an irrigation system to settlers as well. The responsibility of conducting this survey fell to Charles H. Southworth, a young Indian Service engineer.

Southworth made this survey in 1914 using relatively simple technology: a field survey using the standard triangulation system, a visual analysis of the land and the oral testimony gathered from thirty-four Pima elders.\(^{574}\) Using this oral testimony and modern technology provides a qualitative and quantitative means of analyzing the adjudication survey. GIS technology provides a level of dissection not available to Southworth and not possible with a simple visual analysis of the maps. While not altering the general findings of Southworth, a modern analysis identifies specific crop patterns on the reservation that, when compared with those off reservation, illustrates the effect of water loss and aids in understanding the depth of deprivation and the adaptation the Pima were forced to make a century ago.


The Indian Irrigation Service assembled a set of plain table maps illustrating the current and previously irrigated lands on the reservation as a precursor to both the passage of federal legislation authorizing the Florence-Casa Grande Project (FCGP) and the anticipated adjudication of Gila River water rights. Using data extracted from these maps, the Indian Service intended to protect water for the Pima under the local doctrine of prior appropriation. With a conservative population estimate of 3,500 adults, the Indian Service anticipated ten-acre irrigable allotments per capita, or 35,000 acres with water rights.575

Table 4: Mean Field Size of Abandoned and 1914 Cultivated Pima Lands

<table>
<thead>
<tr>
<th>Category</th>
<th>1914 Fields</th>
<th>Abandoned Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fields</td>
<td>2,112</td>
<td>1,066</td>
</tr>
<tr>
<td>Acres</td>
<td>12,069</td>
<td>6,998</td>
</tr>
<tr>
<td>Mean Field size</td>
<td>5.16</td>
<td>6.57</td>
</tr>
</tbody>
</table>

(Source: Adapted from the Southworth maps, 1914)

With the survey, the Indian Service also instituted an action encouraged by the Army Corps of Engineers. A bill in Congress contemplated a federal project to restore Pima rights “to the use of the [Gila River] water.” This project was predicated on a joint-use system would benefit all farmers and integrate the reservation economy with that of Pinal County.576 A corollary measure was to facilitate the final allotment of the reservation. From a political and practical perspective, Pima tribal water rights would have little relevance following land severalty since the federal consensus supported the theory that Indian water rights would follow the doctrine of prior appropriation. Scarcity

575 This population estimate was far too low, as the census figures of the Indian Service point out. In 1921, when allotment was completed, 4,984 individuals received two ten-acre allotments: one with water and one for grazing.
of water materially reduced the number of Pima farms, as shown in table 4, which indicates 33.6% of all Pima fields were abandoned in 1914 (36.7% of all acres). The mean abandoned fields were 21% larger than the mean 1914 fields.

In 1912, two years before the adjudication survey, the Pima had cause for optimism when Congressman John H. Stephens (D-TX) introduced into Congress a bill authorizing federal action on Pima water rights. Assigned to the House Committee on Indian Affairs, the bill had the support of a number of eastern “friends of the Indians” who could expend political capital on Indian causes without fear of voter insurgency. Some members of Congress, including Stephens, Senator Joseph Robinson (D-AR) and Senator Carroll Page (R-VT), were familiar with the Pima’s long-standing grievances. Western politicians, having voting constituents competing with Indians for federal reclamation development, generally opposed Indian irrigation projects. Carl Hayden, a member of the House Committee on Indian Affairs, was no exception. Litigation, the first year Congressman and son of a former trader on the Pima Reservation argued, would not provide Pima lands with “as much moisture as was to be found in the ink of the signature of the judge who would sign such a decree.” A judge could not make it rain and no judge could stop the river from flooding. Besides, Hayden reasoned, the loss of Pima water was “not due in any great measure to diversions” but resulted from environmental changes within the Gila watershed. Hayden convinced the committee to kill the bill and instead worked to gain support for a joint-use reclamation project on the Gila River that would

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rival Roosevelt Dam on the Salt River. With the bill dead in committee, Hayden secured legislation authorizing the Corps of Engineers to conduct a feasibility study of the San Carlos dam site.

Heavy flooding along the Gila River in the spring of 1912 destroyed the brush diversion dams used by the Pima to divert what natural flow remained in the river. By the time the necessary repairs were made, the floodwaters had receded and the Pima again lacked water. Special Indian Agent Charles E. Ellis wrote Commissioner of Indian Affairs Robert Valentine suggesting the efficacy of building an inexpensive diversion dam on the east end of the reservation to harness floodwater. If water was not restored soon, the Pima might not “ever regain their past confidence.” Each successive flood further deepened and widened the river channel, making limited water flows less accessible for irrigation by the Indians. Without protection of their water, Olberg opined, the Pima would be unable to “cultivate as much land as they formerly did.”

After 1912, Indian water cases overwhelmed the U.S. Justice Department. Well-publicized suits from the Ft. Belknap Gros Ventre-Assiniboine in Montana, Pyramid Lake Paiute in Nevada, Yakima in Washington, Uintah and Ouray Ute in Utah and the Gila River Pima dominated Congressional Indian affairs committees. Nevertheless, challenges remained in prosecuting these cases. Indian Service Chief Engineer Wendell Reed complained to Commissioner Cato Sells in 1913 that the Justice Department


litigated Indian cases but it did not “get out and secure the evidence” needed to prosecute successfully such claims. It “simply fights with the ammunition that is brought to [it].” Opponents of the Indians hired “good lawyers” and “leave no stone unturned” in gathering the evidence needed to support their position. While the Justice Department assigned two water rights attorneys to handle Indian cases, it did not provide any resources to research Indian water claims.\textsuperscript{581} Such unresponsiveness forced the Indian Service to change its tactics. To protect Indian water rights and provide the Indians with an equal chance to succeed in the local and national economy, the Indian Service needed data that would substantiate tribal claims. This took on enhanced meaning with land severalty in arid regions such as Arizona.

Olberg informed Sells of the importance of survey maps in documenting the extent of Pima land then under cultivation and having priority rights to water. With Sells’ support, Olberg proposed putting four men in the field conducting “adjudication surveys,” two gathering data on the reservation and two above it. He then assigned John S. Layne to examine land records in Pinal, Pima and Graham counties regarding “water appropriations that might have some bearing” on adjudication hearings. Assistant engineer F. M. Schanck stressed the propriety of a survey to determine the extent and quantity of water used by the Indians.\textsuperscript{582} Until this information was gathered, Olberg was
unable to “guess within a couple thousand acres” how much Pima land was under irrigation.\footnote{583}

Olberg did not believe it proper to take water from upstream users—after they had put it to beneficial use with the blessing and approval of the United States Government—and restore it to the Pima. In an effort to mitigate this conflict, Olberg recommended constructing two diversion dams on the river, believing they would “be of material and immediate benefit” to the Pima and “absolutely essential” to the success of irrigation on the reservation.\footnote{584} When the Corps of Engineers declared feasible the proposed San Carlos Project in 1914, it also recommended the construction of a diversion dam above Florence. This would better utilize floodwaters that could then be transported through a thirty-one-mile long canal “to improve irrigation conditions on the Pima Reservation.” If the Florence diversion dam were not politically possible, then at a minimum a diversion dam was to be built at the head of the Little Gila River to capture the return flow from upstream users near Florence to be beneficially used by Pima farmers on the east end of the reservation.\footnote{585} First, however, the Corps recommended adjudication of water rights.

By spring, some members of Congress were convinced of the propriety of a reclamation project on the Gila River and remained open to the idea of constructing a diversion dam if it would benefit Pima farmers.\footnote{586} Hayden and Senator Henry F. Ashurst
(D-AZ), determined to use this sentiment to the advantage of all Pinal County farmers, sought a joint-use system that would enable the Pima and their non-Indian neighbors to put their water to beneficial use and thereby protect it under state prior appropriation laws. Distributing the benefits of reclamation through a joint use project was socially and politically more palatable than reallocating water, leading Hayden to support a more conservative and expedient course.587

In June, Hayden and Ashurst co-introduced legislation calling for construction of San Carlos dam and a joint-use irrigation project. Facing opposition from Western Congressmen who believed Arizona already had its share of federal reclamation (i.e. the Salt River project), Hayden and Ashurst initiated a public relations campaign designed to shape opinion for the San Carlos project. “Our best, and in fact our only avenue of approach is by reason of the fact that the Pima Indians will be benefited,” Hayden noted.588 The Pima, meanwhile, initiated their own public relations blitz, with the Pima First Presbyterian Church in Sacaton writing members of Congress seeking support for a reclamation project on the Gila.589


The House Committee on Indian Affairs was particularly interested in the reimbursement of any federal outlay of money. The general law of funding irrigation projects was to make them reimbursable through the sale of lands. While the Pima had no money to their credit, Assistant Commissioner of Indian Affairs Edgar Merritt informed the Committee, they did have “quite a large reservation.” Whether or not it could be sold was a “question to be determined later.” While he did not advocate the sale of any land, Merritt did believe the Pima would “ultimately have funds” to reimburse the government. Nonetheless, the Committee refused to exempt the reservation from sale, believing the Pima had more land than necessary. Merritt agreed surplus lands would remain after allotment and could be sold to reimburse the government—if Congress so chose. Diversion Dam on the Gila River At a Site Above Florence, Arizona, Excerpts to be used by the Committee on Indian Affairs, 64th Congress, 2nd Session (Washington, DC: GPO, 1917), pp. 14-16.

588 Quoted in August, 1992, p. 402. Hayden also faced opposition from Upper Valley water users (Safford, Duncan and Virden valleys) who were fearful they would be “compelled to abandon their homes” to benefit the Florence-Casa Grande and reservation farmers. See “Upper Gila Valley Alarmed over San Carlos Project,” in Arizona Blade-Tribune, dated April 4, 1914, p. 1.

the Pima, also broadcast Pima water rights in speeches and articles to local communities, pushing for an “early adjustment” of Gila River water rights by court decree.590

Ashurst, chairman of the Senate Indian Affairs Committee, immediately requested that Interior Secretary Franklin Lane prepare a position paper outlining the views of the Indian Service regarding a smaller joint-use diversion dam above Florence, a concept viewed as more feasible after a series of floods in the winter of 1914-1915. “Certain it is,” Assistant Engineer Nathan W. Irsfeld wrote Southworth from Sacaton in February, “more acres of (reservation) land went downstream with the last flood.” The torrent left several canals on the reservation in “very bad condition,” with the wing dam at the head of the Little Gila River completely destroyed. While upstream farmers might be able to build a permanent diversion dam above Florence to protect them from flooding and better utilize the water, Lane told Ashurst, the government would have to oppose them “in order to protect the water right now claimed by the Indians.” Lane consented to the proposed project but only if it would “give the Indians an advantage of location that they have not heretofore enjoyed.”591

Reed proceeded cautiously, seeking to protect Pima water through the politically conservative “beneficial use” approach. Writing to Sells, Reed stressed the desirability of increasing Indian irrigation as a means of self-support and for “the preservation of undisputed legal rights to the water.” Showing his deference for prior appropriation, Reed informed Sells that such use of the water was more in accordance with the “law in arid

states” and “cooperation with state officials is encouraged by acting in harmony with this plan.” Already in February 1914, Reed had dispatched a letter to Olberg stressing the importance of demonstrating actual number of acres cultivated by the Indians. “I find that Congressmen simply go up in the air when they question [me] and find that a considerable amount [of money] has been expended in irrigation projects and [I am] unable to show any tangible beneficial results.” Olberg responded by explaining again that the “amount of land irrigated [by the Pima] changes from year to year,” depending on water availability. While currently unable to quantify the acreage under irrigation, Olberg promised Reed when the present surveys were completed he could tell the chief engineer the quantity to within “a fraction of an acre.”

While the Corps of Engineers recommended adjudication of Gila River water rights as a precursor to any irrigation project, litigation made Hayden and Florence-Casa Grande area farmers uneasy, especially if Congress were to authorize federal action. Desiring to restore water to the Pima and provide for his voting constituents, Hayden encouraged Pinal County water leaders to settle any water adjudication matter in a friendly manner rather than “quarrel over the meager supply.” Water then going to waste in times of flood made little sense when it could be harnessed to benefit all farmers in the Gila River Valley.

suggested Olberg not only survey the reservation but also include the upstream lands so as to “limit and define the quantity of water” being used above the reservation.\textsuperscript{595} Merritt authorized $3,000 to install and maintain gauging stations on the Gila to chart the flow of water and effects of upstream diversions. At Olberg’s request, six of these stations were placed on the Gila River, one on the Santa Cruz River and one on the San Pedro River. In an attempt to keep water hearings out of federal court, Pinal County water users initiated a friendly complaint at the superior court in Florence on December 9, 1913. Olberg immediately begged Reed to do all he could to “stave off the adjudication a few months longer [so] we will be in a position to present the claims of the Indians.”\textsuperscript{596} The Justice Department, believing sufficient efforts to protect Pima water rights were taken, did not intervene.

Reed delayed adjudication hearings in the \textit{Lobb v. Avenente} complaint until June 10, 1914, when Cochise County Judge A. C. Lockwood commenced hearings on the complaint that sidestepped Pima water rights and focused almost solely on the rights of water users in Pinal County. As non-citizen wards of the government, the Pima were neither present in the Florence courthouse nor were their interests represented. Hayden

\textsuperscript{595} The Florence newspaper noted in many instances off-reservation landowners were “reluctant to give accurate data” to the Indian Service, which was collecting the information. The \textit{Arizona Blade-Tribune} urged its readers to cooperate fully since the truth would eventually come out. “Water Rights Data Coming Slowly,” \textit{Arizona Blade-Tribune}, June 27, 1914, p. 1.

\textsuperscript{596} “Schanck to Olberg,” dated Los Angeles, Calif., April 28, 1914; “Merritt to the Director of the Geological Survey,” dated Washington, DC, March 7, 1914; and “Olberg to Reed,” dated Sacaton, Ariz., February 9, 1914, all in \textit{Olberg Letterbox, Historical Research, 1913-1914}. The Justice Department, believing it was progressing in its protection of Pima water rights, did not intervene on behalf of the Pima. Attorney General James Clark McReynolds errantly believed the \textit{Lobb v. Avenente} case would take into consideration Pima water rights, which it did not. \textit{Annual Report of the Attorney General 1914} (Washington, DC: GPO, 1915), pp. 38-39. The \textit{Arizona Blade-Tribune} stated on May 30, 1914, “While it is known that the Indian Department has been looking into the matter of water rights in the valley on behalf of the Indians there is nothing to indicate the department will ask to have the case transferred to the federal court.”
convinced Lockwood to limit the proceedings to Pinal County, believing that keeping Upper Valley users in Gila County out of court would best serve all parties.\footnote{August, \textit{Carl Hayden’s Indian Card}, p. 420 note 10. The complaint filed in the case of \textit{George Lobb vs. Peter Avenente, et al.} included more than 250 defendants. The court adjudicated water rights to 11,039 acres in the Florence-Casa Grande area with priority rights between 1868 and 1915. Supplemental decrees recognized water rights appurtenant to additional lands. The case, however, did not settle Pima water rights. A federal suit filed on the behalf of the Pima in 1925 eventually resulted in the 1935 \textit{Globe Equity} ruling.}

Meanwhile, Reed agreed with Olberg’s request to survey all the middle Gila River Valley in order to quantify the current and formerly irrigated lands of the Pima and Maricopa as well as their non-Indian neighbors both above and below the reservation. Olberg then assigned Southworth to conduct the surveys. Southworth and a crew of Pima instrument men went about surveying and mapping all irrigated and previously irrigated lands within the reservation, producing a set of thirteen plain table maps drawn on a scale of 1:1,000. In the process, the Indian Service produced a graphic representation of the historic parameters of agriculture on the reservation.\footnote{John Wilson examined the 1904 J. R. Meskimons’ map and compared it to the 1914 Southworth maps, finding them to be within 161.9 acres of each other. The Meskimons’ map simply shows general areas with acreages listed while the Southworth maps show specific fields. Meskimons estimated 27,014.2 acres currently were—or had been—farmed while Southworth estimated 26,852.3 acres. Wilson, \textit{People of the Middle Gila}. GIS analysis shows a total of 19,067.20 acres, although imperfect edges on the plain table maps precluded precise matching of some fields, leading me to drop them from consideration. Consequently, my analysis examines 3,178 fields and is not concerned with discrepancies between the two maps or total cultivated acres. It is, rather, more interested in the disparate proportion of crops (i.e. food and fiber) grown on and off the reservation in 1914.} The maps also illustrate in detail the land then irrigated, that previously irrigated, and that susceptible of irrigation, as well as the “various kinds of crops to which the land was planted.” The survey clearly shows the abandonment of scores of Pima farms due to water loss, with entire villages shifted or deserted. There were 3,766.19 acres not in cultivation and an additional 3,231.81 acres giving evidence of having been previously irrigated, leaving a total of 6,998 acres (36.7%) not in production in 1914. Other farms were “only partially cultivated, yielding scant and uncertain returns.” This is substantiated by Pima farmer George Pablo who complained that many of his people “had to leave our farms and move up the river”
where seepage water was available. Pima James Hollen added, “Our fathers were forced to leave their old fields in the District of Sacaton Siding (Sranuka) where they built homes and cultivated lands. We felt the decrease of water first as we were the last to take out our water from the river.” Whole villages—including Pablo’s Mount Top Village—simply disappeared as the water dried up.599

Map 10: Village Clusters within the Pima Reservation, 1914

(Source: Author file)

The Southworth survey clearly demonstrates the geomorphology of Pima agriculture. Of the eight village clusters shown on map 10, half were of recent origin or had shifted location, i.e., Gila Crossing (1873), Santa Cruz (1875), Santan (1877), Maricopa (1887), and Cooperative (1900). All but Santan was downstream of the historic center of the Pima villages (Casa Blanca area) and close to the confluence of the Santa Cruz, Gila and Salt rivers. Furthermore, several village clusters abandoned canals and fields after the first upstream diversions of water, including Blackwater, Sacaton and Casa Blanca, all older, established villages. Overall, an average of 4.13 delivery ditches served each cluster, and, in addition to currently cultivated lands, each demonstrated evidence of previous agriculture (abandoned fields) and lands not then in cultivation, as seen in table 5. Blackwater, Sacaton and Casa Blanca exhibited the largest percentage of abandoned fields (38%, 36% and 37%, respectively).600

The easternmost cluster centered around Blackwater, which was dependent on floodwater and a limited supply of seepage water for its crops. This posed problems, as Pima farmer Juan Enas “felt obliged to use it anyway in order to keep our families alive,” despite the fact that it reduced yield on vegetable crops.601 During the 1890s, Blackwater farmers harvested few crops due to insufficient water in the Old Woman’s Mouth and Blackwater Island ditches, which served the south bank of the Gila. Water failure doomed the former ditch to abandonment by 1905, although the latter still irrigated 1,029 acres in 1914. A third ditch on the south bank (heading above the reservation) was the Padilla, which irrigated just forty-four acres of reservation land. Two additional ditches

600 Cooperative village was an anomaly, with 49% of its fields abandoned. Established during a time of minimal seepage flow in 1900, Cooperative’s high abandonment rate might be due to it being last in line to receive water off the Gila River.
on the north bank of the Gila served the Blackwater cluster. A scarcity of water in the Cayah ditch led to the downstream establishment of the Santan district in the 1870s. The Cholla Mountain ditch irrigated 941 acres in 1914. Despite existing ditches, some farmers did not harvest any crops due to water shortages. Southworth estimated 2,761 acres in cultivation or abandoned in the Blackwater cluster.602

Downstream from Blackwater was the Sacaton cluster, which included the villages of Sacaton and Sacaton Flats. Six ditches served the area that included the Pima Agency and Agency farm, as well as the U.S. Department of Agriculture’s Sacaton Cooperative Agricultural Station. The Yaqui ditch irrigated just forty-four acres before it was abandoned in 1902 and replaced by a larger ditch to convey water from Blackwater slough via the Little Gila River for use downstream. Although abandoned in 1885 due to inadequate water, the Old Santan ditch at one time irrigated 1,272 acres. The Sacaton Flats Canal and the Cottonwood ditch served 899 and 819 acres, respectively, at the time of the survey.603 The Hendricks ditch irrigated just seventy-six acres, while the Old Maricopa ditch no longer served any land. Sixty-seven year old Antonito Azul noted the abandonment of 123 acres of land he and his father, Chief Antonio Azul, once cultivated under the Cottonwood ditch, “not because we cannot work, but because there is no water to irrigate with.” George Pablo abandoned thirty of his forty-five acres of land due to lack

602 Southworth, pp. 121, 155. Statement of Samuel Scoffer, p. 9. Statement of William Wallace, pp. 5-6. Statement of Juan Thomas, p. 1. In 1926, the Indian Service, in “Gila River Priority Analysis Water Distribution Chart No. 3,” dated Florence, Ariz., January 20, 1916, gave a total of 2,010 acres as having rights to water in the Blackwater Area. Totals from Chart No. 3 will be listed in the notes for each village cluster for comparative purposes only. Each cluster total differs from the Southworth totals in that the 1926 analysis included land not identified by Southworth. GIS analysis for each cluster also differs in acreage. The Southworth numbers are provided for informative purposes only. Blackwater Island ditch was constructed in 1862, followed by Old Woman’s Mouth ditch in 1881 and the Padilla ditch in 1910. The Cayah (or Woods) ditch (1869) and the Cholla Mountain (or North Blackwater) ditch (1866) were both on the north bank of the river.

603 Statement of Antonito Azul, p. 18. See also Statement of George Pablo, 33.
of water. Southworth estimated the current and abandoned cultivated land in the Sacaton cluster at 4,348 acres.\footnote{Southworth, pp. 122, 133. Statement of John Hayes, p. 15. Statement of Antonito Azul, pp. 17, 19. “Gila River Priority Analysis Chart No. 3” provides a total of 5,215 acres with priority rights in 1914. The Sacaton Flats (or Upper Stotonic) ditch was completed in 1872, the same year the Cottonwood ditch opened. The Hendricks ditch opened in 1904, with the Old Maricopa ditch constructed in 1849 and abandoned in 1871.}

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Ditches</th>
<th>Abandoned Acres</th>
<th>1914 Acres</th>
<th>Total Acres</th>
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<tr>
<td>Blackwater</td>
<td>5</td>
<td>747</td>
<td>2,014</td>
<td>2,761</td>
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<tr>
<td>Sacaton</td>
<td>6</td>
<td>2,342</td>
<td>2,006</td>
<td>4,348</td>
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<td>Santan</td>
<td>2</td>
<td>201</td>
<td>3,319</td>
<td>3,520</td>
</tr>
<tr>
<td>Casa Blanca</td>
<td>12</td>
<td>7,174</td>
<td>4,048</td>
<td>11,222</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>2</td>
<td>31</td>
<td>665</td>
<td>696</td>
</tr>
<tr>
<td>Gila Crossing</td>
<td>3</td>
<td>158</td>
<td>1,680</td>
<td>1,838</td>
</tr>
<tr>
<td>Cooperative</td>
<td>2</td>
<td>435</td>
<td>607</td>
<td>1,042</td>
</tr>
<tr>
<td>Maricopa</td>
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<td>219</td>
<td>1,271</td>
<td>1,490</td>
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<td>33</td>
<td>11,307</td>
<td>15,610</td>
<td>26,917</td>
</tr>
</tbody>
</table>

(Source: Adapted from Southworth, The History of Irrigation along the Gila River, 1915)

Directly north of Sacaton was the Santan cluster that included the Santan Indian Canal and the Lower Santan Canal, both of which were on the north bank of the Gila River. When water grew scarce under the upstream Cayah ditch, these canals served families that moved downstream where Juan Jose recalled their “purpose was to get and work more land” than what was then available upstream.\footnote{Statement of Juan Jose, p. 67.} The Lower Santan Canal was eventually absorbed into the Santan Indian Canal, with irrigated fields located on either side of the canal. The Santan cluster was unique among all villages in that its fields were rectangular and served by multiple lateral ditches conveying water from the Old Santan Canal. This anomaly is a reflection of missionary Charles Cook who surveyed the canal
and the lands served by it in 1877. There were 3,520 cultivated or abandoned acres in the Santan cluster.606

Continuing downstream was the Casa Blanca cluster, which included the waning villages of Snaketown and Stotonic, as well as Bapchule, Sacate, Wet Camp and Vah Ki. Two ditches served Snaketown, including the ancient Sratuka that historically irrigated 1,273 acres and the Snaketown, under which 354 acres were cultivated. Most of these Pima moved to the Salt River in 1872 due to insufficient water. On the south bank directly opposite Snaketown was the Ancient Stotonic ditch that once served 590 acres. Abandoned because of shifting in the head of the canal precipitated by reduced water flows, the Stotonic ditch replaced it and irrigated 1,559 acres. The New Mount Top ditch replaced the Old Mount Top ditch, before it, too, was abandoned after just one season. Below the Stotonic was the Bapchule Canal serving 1,937 acres near the village of Stotonic.607

Just to the west but still part of the Casa Blanca cluster were four smaller ditches. The Bridlestood Canal was on the north bank of the Gila and abandoned in the late 1880s due to insufficient stream flow. Further west was the Ancient Maricopa ditch, which was abandoned in the 1870s when river flows declined. Two canals on the south bank served additional fields. The Sranuka ditch once irrigated 736 acres, with most of the inhabitants

606 Statement of Cos-chin, p. 61. Southworth, p. 133. “Gila River Priority Analysis Chart No. 3” lists 4,539 acres. Statement of Tor White, p. 63. The Santan Indian Canal is often confused with the Santan Floodwater Canal, built between 1908 and 1913 by the U.S. Reclamation Service. While the old Santan Indian Canal is Canal 10 today, the Santan Floodwater Canal is the Santan Canal. The Santan Indian Canal opened in 1877 with the Lower Santan Canal constructed two years later.

607 Southworth pp. 125, 127, 137-138. Southworth notes most of the Pima from Snaketown moved to the Salt River in 1872 due to insufficient water. Statement of Joseph Head, p. 82. The Ancient Stotonic ditch dated to 1880; both the Old Mount Top and Bapchule ditches were of ancient origin.
moving downstream to Gila Crossing in the late 1870s where seepage water existed.\footnote{Statement of George Pablo, p. 38. The Bridlestood Canal was of ancient origin and was abandoned by the late 1880s. The Ancient Maricopa ditch—abandoned due to loss of water in the 1870s—was an old ditch, constructed in 1840. The Sranuka (or Alkali Camp) ditch also of ancient origin.} A portion of the ditch remained in use and was renamed the Alkali Camp Canal, which served 198 acres of land. The Old Santa Cruz Canal was abandoned when most of the villagers under this canal moved west to the Santa Cruz River in the 1870s. Once the epicenter of Pima agriculture with 11,222 acres in production, Casa Blanca farmers cultivated just 4,048 acres in 1914.\footnote{Southworth, pp. 126-129. Statement of Benjamin Thomas, p. 27. “Gila River Priority Analysis Chart No. 3” lists 12,527 acres with priority rights to water. The Old Santa Cruz ditch dated to 1855, although it fell into disuse in the mid 1870s.}

A fifth cluster was found around the village of Santa Cruz, located between the Santa Cruz and Gila rivers and established in 1875 by farmers from the Old Santa Cruz ditch within the Casa Blanca cluster. Two ditches served the village, with the Simon Webb serving 660 acres.\footnote{Statement of Juan Lagons, pp. 76-77. The Simon Webb ditch was also known as the Holden ditch and dated to 1877.} The more southerly Breckinridge ditch diverted water from the Santa Cruz River and irrigated just five acres. Crops under this ditch fared poorly, Pima farmer Juan Lagons recalled, because of seepage water, again indicating reduced productivity when loss of the river mandated dependence on seepage. Only because of episodic floodwater, Lagons continued, were the fields kept alive as “otherwise they would have been useless long ago.” There were 665 cultivated and thirty-one abandoned acres in the Santa Cruz cluster in 1914.\footnote{Southworth, p. 140. “Gila River Priority Analysis Chart No. 3” lists 993 acres with water rights in 1914. The Breckinridge ditch dated to 1902.}

Downstream from Santa Cruz was the Gila Crossing cluster, served by three ditches that irrigated fields on both banks of the Gila. The Hoover ditch, constructed to supply water to a group of Pima farmers who moved downstream in 1873, served 954
acres by 1914. To the west and on the south bank of the river was the John Thomas Canal, which irrigated 587 acres. The Joseph Head Canal and the John Thomas ditch were consolidated and irrigated 139 acres in 1914. Within the Gila Crossing cluster, there were 1,680 cultivated and 138 abandoned acres.612

The final village cluster irrigated by the Gila River was Cooperative Village, served by the Cooperative Canal. Seventy-two Pima heads of families worked cooperatively in 1900 to develop the land and utilize seepage water that rose to the surface in the Gila just below the Hoover ditch heading. While once irrigating 984 acres, the three and a half mile long Cooperative ditch irrigated just 594 acres in 1914. The Oscar Walker ditch also served the Cooperative cluster but irrigated just thirteen acres. This latter ditch was the lowest taking water out of the Gila River. At the time of the survey, there were 1,042 acres prepared for irrigation, although just 607 were currently cultivated.613

The eighth and final village cluster was the Maricopa, which took water out of the Salt River four miles upstream from its confluence with the Gila. The Maricopa, once irrigating along the middle Gila upstream, abandoned their fields and move to the Salt River because of a growing scarcity of water in the 1880s. Maricopa village, established in 1887 and served by the Maricopa Canal, irrigated 1,271 acres. An additional 219 acres were abandoned and another 144 acres had been fenced and cleared but was not farmed.

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612 Village leaders, such as Simon Webb, John Thomas and Joseph Head, often times attached their names to downstream ditches. Statement of Joseph Head, pp. 80-81. Southworth, p. 141. “Gila River Priority Analysis Chart No. 3” lists 2,102 acres with rights in 1914. The John Thomas ditch (1876) and Joseph Head ditch (1886) were both of recent construction.
613 Statement of John Rhodes, p. 84. “Gila River Priority Analysis Chart No. 3” lists 2,276 acres. Cooperative ditch (1900) and the Oscar Walker ditch (1903) were very recent construction projects.
Fields under this canal were entitled to water from the Salt River under the 1903 Haggard Decree.

Analysis of the adjudication maps requires some explanation. With field data for the reservation digitized, and with aggregate data for all farms in the state available from the U.S. Census Bureau, I could compare crop pattern differences. Crop patterns provide a measurement of the health and vitality of the reservation economy and whether or not reservation-based agriculture was on par with, or on the periphery of, Arizona agriculture in 1914. Differences in mean village field sizes on the reservation provided the data needed to determine inter-village differences and the effects of water loss.

There are several caveats to consider before analyzing and explaining the survey maps. Southworth spent six months (January through June) in the field conducting the adjudication survey. This timeframe is significant in that, under normal conditions, it might be skewed toward winter crops with an accounting of only some summer crops (i.e., fields surveyed in May or June). While summer crops would have been planted and winter crops would be nearing maturation in some areas (Santa Cruz, Blackwater, Gila Crossing, Cooperative and Maricopa), the fact that not all villages were surveyed during the spring precluded some from being adequately represented on the survey map, particularly Sacaton, Santan and Casa Blanca. Since Pima agriculture was traditionally

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614 I am indebted to Dr. Wendy Bigler of Southern Illinois University at Carbondale Geography Department for the GIS data on the 1914 Southworth plain table maps. Dr. Bigler and I spent several days in the summer of 2004 examining maps in the San Carlos Irrigation Project archives in Coolidge, Arizona, and preparing to digitize them.


616 This seems to be an important consideration when we recognize the Indian Service was prepared to allot the reservation. If the Indian Service were seeking to provide an “equal chance” for the Pima then it would be incumbent upon the department to ensure the Indians were actually in a position to compete with non-Indians, as its rhetoric implied. This, of course, was rarely the case and the Indian Service seemed less concerned with competitive Pima farmers than it did with allotment.

617 Santan and Casa Blanca were surveyed between January and March; Sacaton in February; Santa Cruz and Blackwater in April; Gila Crossing between April and May; Cooperative in May; and Maricopa in May and June.
seasonal, with grains the dominant winter crop and cotton, corn and squash more dominant in the summer, the data may be skewed towards the former. This limitation, however, is mitigated by the fact that insufficient water limited most fields to one crop per year, as Pima farmers Juan Thomas, Havelena and John Makil explained in 1914.618

A second factor is that off-reservation crop data for the State of Arizona, while reflecting an accurate picture of all crops grown, provide values taken from the 1910 and 1920 U.S. Census Bureau crop census. The State of Arizona did not collect crop statistics in 1914. Consequently, local cropping patterns (i.e., Pinal and Maricopa counties) cannot be directly compared with reservation crop patterns, which would have been the ideal comparison. To address this challenge, I used averaged data from 1910 and 1920 to reflect the state of agriculture in Arizona in 1914. Census data, however, limits crop patterns to total acres and proportions only, not specific field (or farm) sizes and number of fields planted to specific crops, something the Pima adjudication survey does provide. The present analysis also dropped any consideration of fruit acreage in Arizona due to limited data availability. Because the Southworth data are for fields (not necessarily farms) and the Arizona data are for farms (not fields) no direct comparison can be made of farm sizes, although the average of the former was estimated by Southworth at between ten and fifteen acres, while the latter was 135.1 acres.

A third consideration is the manner in which the adjudication maps refer to fields. Southworth lists each field as planted to a single crop when this was more than likely not the case. Pima farmers frequently planted “a portion of each field … to pumpkins,

618 See, for example, statements of Juan Thomas, pp. 1-2; Havelena, p. 3; and John Makil, p. 23.
squash, and melons” each year. Other smaller plots of vegetables would also have been planted but fail to show up in the survey. Fruit production was minimal and, as Reed explained, would have been “confined to small orchards in connection with individual farms.” This might explain why there were only eleven fields marked “orchards” out of the 3,178 fields. While the map scale is detailed and shows fields smaller than one acre, Southworth omitted small garden plots or simply consolidated them with the more dominant crop planted in the field.\textsuperscript{619}

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Hay</th>
<th>Corn</th>
<th>Cotton</th>
<th>Grains</th>
<th>Other</th>
<th>None</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackwater</td>
<td>17</td>
<td>3</td>
<td>4</td>
<td>215</td>
<td>1</td>
<td>146</td>
<td>386</td>
</tr>
<tr>
<td>Sacaton</td>
<td>57</td>
<td>47</td>
<td>9</td>
<td>152</td>
<td>4</td>
<td>147</td>
<td>416</td>
</tr>
<tr>
<td>Santan</td>
<td>34</td>
<td>42</td>
<td>18</td>
<td>290</td>
<td>2</td>
<td>152</td>
<td>538</td>
</tr>
<tr>
<td>Casa Blanca</td>
<td>0</td>
<td>58</td>
<td>0</td>
<td>391</td>
<td>2</td>
<td>262</td>
<td>713</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>49</td>
<td>0</td>
<td>0</td>
<td>123</td>
<td>1</td>
<td>74</td>
<td>247</td>
</tr>
<tr>
<td>Gila Crossing</td>
<td>65</td>
<td>3</td>
<td>0</td>
<td>221</td>
<td>1</td>
<td>82</td>
<td>372</td>
</tr>
<tr>
<td>Cooperative</td>
<td>27</td>
<td>4</td>
<td>0</td>
<td>76</td>
<td>4</td>
<td>114</td>
<td>225</td>
</tr>
<tr>
<td>Maricopa</td>
<td>14</td>
<td>9</td>
<td>19</td>
<td>148</td>
<td>2</td>
<td>89</td>
<td>281</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>263</td>
<td>166</td>
<td>50</td>
<td>1,616</td>
<td>17</td>
<td>1,066</td>
<td>3,178</td>
</tr>
</tbody>
</table>

(Source: Adapted from Southworth maps, 1914)

A final consideration is the variance of crop selection from one village cluster to another. Two clusters stand out: Sacaton and Santan. These village clusters were the most diverse in terms of cropping patterns (see table 6), likely a reflection of the U.S. Department of Agriculture having a field research station in Sacaton, which was just across the river from the Santan district. Farmers in these clusters would have had greater access to markets and experimental crop seeds than those in more remote village clusters.

\textsuperscript{619} Testimony of Wendell Reed, in Indians of the United States, Hearings before the Committee of Indian Affairs, House of Representatives, on the Conditions of Various Tribes of Indians, vol. 2., Hearings, (hereafter Conditions of Various Tribes, Hearings) 66\textsuperscript{th} Congress, 1\textsuperscript{st} Session, (Washington, DC: GPO, 1919), p. 55.
These latter clusters grew a greater percentage of grains, as shown in table 9. Sacaton was also the agency center with a bustle of government activity and influences from the agency farmer, and Santan was the recipient of the first federal reclamation project on the reservation.

To compare cropping patterns on the reservation with those off the reservation required the construction of a graph (not shown) to display the value of each crop. Since this pointed only to the difference between the reservation and the state, I calculated proportional values for the reservation based on a per capita distribution of crops across the state. Population data was secured from the 1910 U.S. census for Arizona and a 1904 Indian Service census for the reservation. Table 7 shows the actual and proportionally-calculated values.

Table 7: Actual vs. Proportionally-calculated acres by crop on the Pima Reservation, 1914*

* Acres sown to crops, not necessarily productive acres

(Source: Adapted from Southworth maps, 1914)
The bar chart visually illustrates the differences in cropping patterns. Based on population and geographic area, Arizona was expected to have significantly larger crop acreage and greater totals by crop. However, when an examination of Pima actual (what was cultivated in 1914) and Pima proportionally-calculated (what should have been grown based on a ratio of acres to population) values is considered, important differences appear. Based on an average ratio, I expected the reservation to have an increased acreage of hay, cotton and other crops (vegetables), a decreased acreage of corn, and 82% less grain. In other words, based on a state-wide ratio, average need and crop selection, the Pima should have grown more fiber crops and fewer food crops.

<table>
<thead>
<tr>
<th>Location</th>
<th>Hay</th>
<th>Corn</th>
<th>Cotton</th>
<th>Grain</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pima Actual</td>
<td>1,001</td>
<td>920</td>
<td>164</td>
<td>9,910</td>
<td>72</td>
<td>12,067</td>
</tr>
<tr>
<td>Pima Proport’al</td>
<td>2,361</td>
<td>357</td>
<td>1,004</td>
<td>1,828</td>
<td>268</td>
<td>5,818</td>
</tr>
<tr>
<td>Difference</td>
<td>(1,360)</td>
<td>563</td>
<td>(840)</td>
<td>8,082</td>
<td>(196)</td>
<td>6,249</td>
</tr>
<tr>
<td>Arizona</td>
<td>124,922</td>
<td>18,877</td>
<td>53,151</td>
<td>96,722</td>
<td>14,196</td>
<td>307,869</td>
</tr>
</tbody>
</table>

(Source: Adapted from Southworth maps, 1914)

This disparity lends support to the belief that Pima farmers expended more energy on growing grain (food) crops since they would not only provide subsistence for the people but they would also require the least amount of water. Pima farmer George Pablo supported this hypothesis when he reported that some Pima farmers fed grain to their cattle in 1914, “after convincing themselves that there will be no maturity of their planted wheat this year.” Ho-Ke Wilson, another Pima farmer, opined the “uncertainty of water
and this alkaline seepage water" caused grain not to mature or reduced its yield.\textsuperscript{620}

Clearly, conditions were not conducive to Pima agriculture.\textsuperscript{621}

<table>
<thead>
<tr>
<th>Village (established)</th>
<th>Acres of Grain</th>
<th>Cultivated Acres</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackwater (ancient)</td>
<td>1,495.38</td>
<td>1,619.68</td>
<td>92.3%</td>
</tr>
<tr>
<td>Sacaton (ancient)</td>
<td>853.40</td>
<td>1,396.36</td>
<td>61.1%</td>
</tr>
<tr>
<td>Santan (1877)</td>
<td>2,114.61</td>
<td>2,670.98</td>
<td>79.2%</td>
</tr>
<tr>
<td>Casa Blanca (ancient)</td>
<td>2,747.92</td>
<td>3,092.45</td>
<td>88.9%</td>
</tr>
<tr>
<td>Santa Cruz (1875)</td>
<td>472.38</td>
<td>581.39</td>
<td>81.3%</td>
</tr>
<tr>
<td>Gila Crossing (1873)</td>
<td>953.27</td>
<td>1,140.76</td>
<td>83.6%</td>
</tr>
<tr>
<td>Cooperative (1900)</td>
<td>317.42</td>
<td>451.37</td>
<td>70.3%</td>
</tr>
<tr>
<td>Maricopa (1887)</td>
<td>956.10</td>
<td>1,114.95</td>
<td>85.8%</td>
</tr>
<tr>
<td><strong>Pima totals</strong></td>
<td><strong>9,910.48</strong></td>
<td><strong>12,067.93</strong></td>
<td><strong>82.1%</strong></td>
</tr>
<tr>
<td><strong>Arizona</strong></td>
<td><strong>18,877.50</strong></td>
<td><strong>307,869.50</strong></td>
<td><strong>6.1%</strong></td>
</tr>
</tbody>
</table>

(Source: Adapted from Southworth maps, 1914)

To develop further the theory that disproportionate grain production might have been a product of insufficient water, I also tabulated the proportion of crops grown by village clusters, as shown in table 9. Analyzing cropping distribution by village clusters points to several patterns. First, there were clear shifts in a number of villages and scores of farms by 1914, as whole groups of Indians simply abandoned one location and sought to reestablish themselves in another. Overall prospects for water to irrigate crops were unpredictable at best, leading farmers to abandon their fields or plant fewer acres. Many

\textsuperscript{620} Statement of George Pablo, p. 31. Statement of Ho-Ke Wilson, p. 5.

\textsuperscript{621} Using the cropping data shown in table 8, a chi-square test for goodness-of-fit was performed. When comparing the observed values of individual crops such as hay, corn, cotton, grain and other (i.e. garden) crops on the reservation with the proportionally-calculated reservation counts, the test result is $P(\chi^2 > 13,594.2) = 0$. When a chi-square test for goodness-of-fit is run on two simple crop categories (food and fiber) using the same values as above the result is $P(\chi^2 > 10,700.05) = 0$. The chi-square tests indicate the probability of seeing this disproportionate ratio of cropping patterns is zero given that all other factors are equal, illustrating the remarkable disparity of crop patterns on and off the reservation. In this case, the $P$-value of zero says that if the distribution of the actual cropping patterns on the Pima Reservation were in accordance with the proportionally-calculated value, an observed chi-square value of 13,594.2 (and 10,700.05) would occur zero percent of the time. On the former test, there were four degrees of freedom and on the latter, there was one degree of freedom. When the test was run against the state crop values the numbers were even more dramatic: for all crops individually the test is $P(\chi^2 > 284,800.34) = 0$ and when the data is packaged in two categories (food and fiber) the test is $P(\chi^2 > 284,654.71) = 0$. 
families left their villages and moved to places where seepage water was available. Fields in the central and eastern—traditionally farmed—areas of the reservation were abandoned due to a dry river channel. This included the villages of Snaketown, Old Stotonic, Mount Top (part of the Casa Blanca cluster) and North Blackwater. Thirty-seven percent of the fields in Casa Blanca were fallow, as were 38% of those in Blackwater. Some farmers were no longer able to grow sufficient food for their needs.622

The overall proportion of grain per village cluster was significantly higher than the statewide proportion, as shown in table 9. This may reflect a cultural affinity for growing grain as a staple food, although Reed believed it was attributed to a lack of water. “Wheat and barley are the staple crops,” Reed informed the House committee. “While the grains are the least profitable, yet they require the least water for irrigation and this consideration is responsible for the selection of these particular crops.” Reed further noted the Pima grew some corn and garden produce but such crops were “not a safe proposition under the gravity [irrigation] system” due to the inability to get water on the crops at the right time. “When [the farmer] is supplied with water,” Reed concluded, he “will make a living and a surplus.”623

To understand better the effects of water loss, an examination of changes in field size is necessary. Calculating cultivated mean field size by village cluster yields surprising results. Larger mean field sizes are found on the eastern half of the reservation. Since water was the primary limiting factor, it might be assumed that larger cultivated fields would have been located in areas where seepage water was more likely to be

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622 Conditions of Various Tribes, Hearings, volume 1, p. 1002.
623 Conditions of Various Tribes, Hearings, volume 2, hearings, pp. 1014-15.
available or in newly established villages, such as those on the downstream portion of the reservation. However, this is not the case. The largest cultivated mean field sizes in acres (6.92 in Santan and 6.86 in Casa Blanca) were in areas where the river was dry. In areas where the river still contained water (albeit minimal amounts), mean field sizes in acres were the smallest (3.36 in Santa Cruz, 3.93 in Gila Crossing and 4.07 in Cooperative). Blackwater (6.75 mean field size) was an exception to this rule. While the river was generally dry there, seepage water allowed crops—especially grain (92.3% of all Blackwater acres)—to grow. Maricopa, served by the Salt River (which continued to flow after the Gila River went dry), had a moderate mean field size in acres of 5.81, as shown in table 10.

<table>
<thead>
<tr>
<th>Village</th>
<th>Fields</th>
<th>Mean</th>
<th>St. Dev.</th>
<th>Variance</th>
<th>No. of Families</th>
<th>Acres/family</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackwater</td>
<td>240</td>
<td>6.75</td>
<td>4.80</td>
<td>23.03</td>
<td>100</td>
<td>4.90</td>
</tr>
<tr>
<td>Sacaton</td>
<td>269</td>
<td>5.19</td>
<td>5.26</td>
<td>27.67</td>
<td>130</td>
<td>4.52</td>
</tr>
<tr>
<td>Santan</td>
<td>386</td>
<td>6.92</td>
<td>4.38</td>
<td>19.16</td>
<td>80</td>
<td>4.03</td>
</tr>
<tr>
<td>Casa Blanca</td>
<td>451</td>
<td>6.86</td>
<td>5.00</td>
<td>25.00</td>
<td>210</td>
<td>4.37</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>173</td>
<td>3.36</td>
<td>2.69</td>
<td>7.26</td>
<td>280*</td>
<td>4.27*</td>
</tr>
<tr>
<td>Gila Crossing</td>
<td>290</td>
<td>3.93</td>
<td>2.56</td>
<td>5.72</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Cooperative</td>
<td>111</td>
<td>4.07</td>
<td>2.39</td>
<td>2.39</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Maricopa</td>
<td>192</td>
<td>5.81</td>
<td>3.94</td>
<td>15.55</td>
<td>190</td>
<td>1.84</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,112</td>
<td>5.99</td>
<td>5.85</td>
<td>34.25</td>
<td>990</td>
<td>3.90</td>
</tr>
</tbody>
</table>

* Santa Cruz, Gila Crossing and Cooperative were all combined in the population census

(Source: Adapted from Southworth maps, 1914)

When all fields are analyzed (including abandoned, not cultivated and cultivated), traditional farming areas—not surprisingly—retain the largest mean field size.624 The largest mean field sizes in acres were found in Blackwater (7.67), Casa Blanca (7.26) and

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624 A one-way ANOVA (F = 20.125 P ≤ .0001) of mean field size by village clusters is statistically significant.
Sacaton (5.78). Santan, established in 1877, had a mean field size of 6.82 acres. Newly established villages such as Santa Cruz (3.21), Gila Crossing (3.74), Cooperative (4.75) and Maricopa (5.73) all had smaller mean field sizes in acres. Since the latter villages were of recent origin in 1914, it appears that, as water deprivation increased, villages not only moved downstream nearer the confluence of the Salt River but also were reestablished with smaller fields.

The larger mean field sizes of Casa Blanca, Sacaton and Blackwater were in older villages, reflecting the pinnacle of Pima agriculture (1845-1870) when they sold millions of pounds of surplus grain, corn and vegetables to military expeditions, government contractors and California-bound emigrants. This is substantiated by Pima informants, who tell the story of villages constructing canals downstream in new districts to irrigate smaller fields with the limited seepage water available. Having little time to build ditches and having little expectation of planting larger fields, heads of families reestablished their farms—and villages—downstream in areas where they believed limited amounts of water would sustain them.625

The variance in field size and water availability did not escape officials within the Indian Service. A farmer in Gila Crossing stated the Pima once “always had an ample water supply for from 4,000-6,000 acres,” even though they were then cultivating less than one-quarter that amount. Yet, in Sacaton, the “Indians have had little water since 1890.” Farms that were productive before that time were now idle. While occasional floodwater or localized rainfall enabled the cultivation of a crop, the uncertainty over

625 See Statements of Havelena, p. 3; William Wallace, p. 6; Samuel Scoffer, p. 9; Henry Austin, p. 24; George Pablo, pp. 29-31, 38; Slum Vanico, p. 47; Meguel, p. 52; Harvier, p. 69; and Joseph Head, p. 82.
water resulted in most Indians “ceasing to prepare their fields” for production or sowing them to grain. They also planted smaller fields and experienced social disruptions in water distribution.  

To tie the analysis together, I determined the approximate quantity of water utilized by the Pima in 1914. To do this, I estimated the number of acre-feet of water required to grow each of the crops on the reservation. No data is available on crop watering requirements until 1944, when the Indian Service published a study on the economic conditions of the reservation. For purposes of analysis, these values were adopted. The minimum cotton requirement was three and a half acre-feet per acre with hay requiring five acre-feet of water. Grain required the least amount of water, with two acre-feet required per acre. Corn and other crops were estimated at five acre-feet per acre. Using these values, calculations of the overall water usage and supply shows the reservation probably used no more than 29,374 acre-feet of water in 1914. More than two-thirds of this water (67.5%) was to cultivate grain.

That the Pima faced difficult and uncertain times is clear. Pima farmers had already reduced their mean field size by more than a fifth—and more than one-third of all their fields were out of production. The older and more established villages on the eastern portion of the reservation exhibited a pattern of land going fallow and no longer being

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626 Lee, *The Underground Waters of Gila Valley, Arizona*, pp. 64-66. “Each man takes what he can get whenever he wants it,” Lee asserted. “The result is that certain farms fail entirely for want of water even when there is water enough for all.” M.M. Murphy, superintendent of irrigation on the west end of the reservation, attributed the inequitable distribution of water to the inability of the Gila Crossing families to adjust to the changes in farming that resulted from the diminished flow of the river. Statement of George Pablo, p. 33.

627 Water duties are from *Report on Economic Conditions Existing on the San Carlos Irrigation Project and the Gila River Indian Reservation Arizona*, (United States Department of the Interior, Office of Indian Affairs, Irrigation Division, Agricultural Economics Unit, Los Angeles, Calif., May 1944). These values are considered liberal in that they were recommended water requirements for 1944, after Coolidge Dam and a more assured supply of water was available for the reservation. In 1914, the application of water was likely less than these idea amounts, especially on the reservation where there was a shortage of water.
productive. In fact, these eastern villages—Blackwater, Sacaton and Casa Blanca—show the greatest percentage of fields abandoned. Blackwater had abandoned 40% of its irrigation ditches, Sacaton 50% and Casa Blanca 58%. Family groups from the North Blackwater area moved downstream to the newly created Santan district in the late 1870s. Whole villages within the Casa Blanca cluster abandoned their fields and reestablished themselves downstream or moved to the Salt River. These family groups established new villages when insufficient water in their home villages caused them to abandon their farms.628

The degree of water deprivation can be ascertained when comparing differences in reservation and statewide cropping patterns. These differences are so distinct that they are not likely to occur under normal conditions. Inter-village analyses demonstrate grain was the most dominant crop in the eastern villages, supporting the belief these villages were hard hit by water loss.629 While isolated Pima farmers grew an abundance of crops in 1914, most grew little beyond their own subsistence needs.

A comparative analysis with state patterns points to two final factors. First, the Pima were preeminent farmers. The proportionally-calculated cropping patterns indicate they should have cultivated no more than 5,818 acres; yet they attempted to cultivate more than twice that amount and desired to cultivate still more. Secondly, by cultivating over 12,000 acres of crops in 1914, the Pima remained committed to an agrarian way of

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628 Later shortages affected some of these new villages. Most occupants of Cooperative, for example, moved to the central part of the reservation in the late 1920s when Goodyear Tire and Rubber Company began farming thousands of acres of land in south Chandler. The result was a new village on the reservation called Goodyear. Around the same time as the establishment of Cooperative Village, returning boarding school students founded another “progressive” village—called Progressive Colony—just west of Sacaton.
629 It could be argued that grain production was a function of cultural attitudes—the Pima and Maricopa certainly were conservative farmers who grew large quantities of food crops to sell and trade, especially with the tens of thousands of California “forty-niners” passing through their villages—or due to other variables such as quality of soil or market access.
life, one fully compatible with their social, cultural and economic heritage. Ironically, their agrarian nature was the focal point of latter nineteenth and early twentieth century federal Indian policy. While federal policy was theoretically designed to enable the Pima to cultivate the land in order to regain a level of economic independence, water policy—monopolized by the Reclamation Service—and land (allotment) policy—administered by the Indian Service—countered this goal. Despite efforts to quantify Pima water, non-Indians continued to use it, with the Indian Service impotent in leveraging the survey to benefit the Pima.

In the following chapter, I evaluate the Florence-Casa Grande Project (FCGP), an irrigation project indirectly premised on the adjudication survey. Approved by Congress in 1916, the FCGP was to provide water primarily to the Pima. Notwithstanding this assertion, implementation of the act circumscribed its intended purpose by failing to protect Pima water rights. Having water rights for 35,000 acres, the Pima struggled to farm one-fifth of the land, with actual farming declining 48% due to repeated crop failures caused by increasing water diversions above the reservation. The Indian Rights Association, having assisted the Pima in their water struggle, even acknowledged that the FCGP “resulted disastrously” to the Pima. While Ashurst-Hayden Diversion Dam and Sacaton Diversion Dam both were constructed, their overall impact on the Pima was minimal. While the annual diversion of natural flowing water at Ashurst-Hayden averaged 84,434 acre-feet, at Sacaton Dam it was just 1,639 acre-feet.
CHAPTER 9

“AN EQUAL CHANCE?”
PASSAGE OF THE FLORENCE-CASA GRANDE PROJECT OF 1916

With the completion of the adjudication survey and the Lockwood Decree, Congress addressed Pima water rights by enacting into law the Florence-Casa Grande Project (FCGP), believing it would “thoroughly safeguard” Pima rights. Envisioned as an integral component of the larger, still-hoped-for San Carlos Project, the FCGP instituted a joint-use irrigation system designed to facilitate the economic integration of the Pima Reservation and effect efficient utilization of the remaining natural flow waters of the Gila River. Having already been outmaneuvered by the Salt River Valley for the first federally financed reclamation project, farmers in the Florence-Casa Grande Valley learned important lessons. Politically involved and enfranchised with the vote, these farmers aligned themselves with the politically impotent and disenfranchised Pima to generate a strong moral and legal rationale for development of the area’s water resources.

Arizonans predicated their rights to the use of water on the doctrine of prior appropriation, which conflicted with the Pima’s reserved rights to the water. While the U.S. Supreme Court ruled that tribal nations had “reserved rights” to the water, neither Congress nor the Indian Service gave much credence to the ruling. Lacking resources to develop a competitive and modern irrigation system, the Pima struggled to put water to

beneficial use as defined by local law. Much to the chagrin of the Indians, the Indian Service “waver[ed] between near panic and lackadaisical awareness” of their rights.631

The debate over the FCGP involved deep moral issues that dated back at least half a century. Few informed citizens denied the historicity of Pima water utilization and agricultural productivity. Some, such as Carl Hayden, saw Pima water losses as a byproduct of environmental change in the Gila River watershed. While the national media documented the conditions among the Pima when it served the interests of national reclamation, it was nowhere to be found when debate began on the extent of Pima rights. Well-heeled political forces, meanwhile, marketed the need for additional reclamation in the Florence-Casa Grande Valley to Arizona’s congressional delegation.

The debate also involved conflicting cultural values. For centuries, the Pima represented an oasis for passing emigrants. Only with the blessing of—and protection afforded by—the Pima were American and Mexican settlers able to establish the upstream towns of Florence and Adamsville as agricultural villages safe from Apache raids. As settlers demanded additional land and water, the state congressional delegation was called on for its support. The Pima did not have the voice necessary to advocate their needs. With “resistance to Indian projects … so intense” in the West, approval for Indian irrigation projects was unlikely without “non-Indian recipients [being] included.”632

The political and social forces mobilizing to develop an irrigation project for the Pima stemmed not only from a Congressional desire to integrate the reservation economy with that of Pinal County, but also from the long standing national goal of cultural

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631 McCool, 1994, p. 113.
632 Ibid, p. 140.
assimilation. With Congress moving in one direction for political reasons, the federal courts moved in another, collision-bound course. The matter at hand was whether or not the Pima would have sufficient water to allow them to compete on an economic basis with their neighbors or be relegated to the fringes of society.\(^6^3^3\)

The Pima grew increasingly frustrated by the government’s inattention to their water resources. Unable to restore water on their own accord, the Indians were forced to rely on the federal government for redress of their grievances. Lack of federal action clearly affected the integrity of the tribe. “Following a year of plenty of water,” Wendell Reed lamented, “the Indians take heart … and cultivate a large part of the land.” But when water was scarce, they became discouraged and “the next year they will not farm so much.”\(^6^3^4\) Loss of water not only encouraged the Pima to abandon their agrarian heritage—and this at a time when it was official federal policy to promote agriculture among the Indians—but it also tested their faith in the ability and commitment of the government to restore their water.\(^6^3^5\)

New concerns over Pima water were raised when Agency Superintendent Frank Thackery alerted Valentine that landowners near Florence intended to build another canal. The Pinal Mutual Irrigation Company of Florence had incorporated in 1911 with plans to head a new canal above and parallel to the Florence Canal. While it sought to secure federal funds for construction, Pinal Mutual targeted putting as much water as possible under prior appropriation and pushing forward with its plan without federal

\(^6^3^3\) Lewis Meriam, in *The Problem of Indian Administration*, argued the federal government “assumed some magic in individual ownership of property would in itself prove an educational civilizing factor.” The result, Meriam opined, tended to “pauperize” the Indians.

\(^6^3^4\) *Indians of the United States: Hearing Before the Committee on Indian Affairs, House of Representatives*, p. 1004.

\(^6^3^5\) “Charles R. Olberg to Frank Thackery, Superintendent of the Gila River Indian Reservation,” dated Sacaton, September 4, 1913, in *C.R. Olberg Letterbox, Historical Research, 1913-1914*, in SCIP files.
involvement. Consulting engineer James Schuyler, who earlier evaluated Pima water projects, believed there was enough water to irrigate 25,000 acres above the reservation. This canal would further jeopardize Pima water. More ominously, Schuyler recommended Pinal Mutual sink twenty 15-inch groundwater wells.\footnote{The Pinal Mutual Water Company was unable to secure any water from the Florence Canal Company since the latter was in a failed receivership. Florence landowners formed the new company with the intent of building an entirely new project. The new project planned to build a permanent diversion 4,000 feet above the existing canal head and surveyed a grade of 2.64 feet per mile for 18.38 miles. J.D. Schuyler, \textit{Water Supply and Proposed Irrigation Works of the Pinal Mutual Irrigation Company of Florence, Arizona}, December 5, 1911, pp. 19-21.}

As in many parts of the Indian West, the Pima were fighting not only to hold onto the remaining floodwaters coming down the river but also to restore natural flowing water to which they had been deprived over the preceding half century. The federal government, the agency to which settlers turned for reclamation assistance, was the same government responsible for protecting Indian resources. Frederick Newell, director of the Reclamation Service, was cognizant of this conflict. “The history of … Indians on arid lands has shown that unless protected with great care the rights to the use of water on Indian lands has been gradually lost through neglect or oversight.” Without careful protection, “the future use of the necessary water has resulted disastrously to the Indians.”\footnote{Annual Report of the United States Reclamation Service, 1902 (Washington, DC: GPO, 1903), p. 289.} As legal guardians of the Pima, the U.S. Government had a fiduciary obligation to protect their water. In a clear conflict of interest, the federal government also had a responsibility to protect the rights of non-Indian water users, placing it in the ambiguous position of “enforcing a contradictory and inconsistent set of water laws.”\footnote{McCool, 1994, p. 37.}

Congress was deliberate in considering the impact of the reserved rights doctrine, but remained divided as to what it meant. Western Congressmen staunchly opposed the
doctrine, while Eastern legislators were amenable to it if it quantified a time frame for existence (until allotment was completed). Most did not understand or were unaware of the court’s ruling, including Arizona Senator Marcos Smith, who admitted he had never heard of the case. During the 1914 Indian Appropriation Act hearings, Senator Page, a proponent of Indian reserved rights, argued that American Indians were encouraged to farm and make beneficial use of their water. “The Indian says, ‘I have no money; I have no horses; and I have no wagons. I have no plows. Help me to the wherewith and I will do it.’ Our reply to him is substantially this: ‘No sir, we are going to tie your hands. We will not give you anything to work with; and yet if you do not make beneficial use of this water within three years your rights’” will be taken away.639

Smith was antagonistic to Pima reserved rights, viewing any issue of water rights as a matter of state’s rights (and prior appropriation). Assistant Commissioner of Indian Affairs Edgar Merritt prophetically explained that Congress, by not dealing with the inherent conflicts in water law, would one day see tribes taking “their water rights status to the courts for determination.” Congress was clearly not amenable to legitimizing Pima water rights. Strong political opposition relegated any statutory recognition of reserved rights to the political scrap heap.640

The Indian Service also poorly understood the meaning of reserved rights. Sells believed Indian water rights in general were in jeopardy and that the “legal right to the use of water” by Indians was “of primary importance.” This right, the Commissioner explained, rested “upon common-law riparian rights in some cases, and in others [upon]
beneficial use of water.” While noting the court’s implied reservation of water, Sells believed this applied only to tribal lands and did not “involve the rights of any individual Indian.” The Indian Service adopted the view that reserved rights applied to tribes up to the point of severalty, at which time individual Indians would fall under prior appropriation laws. Sells saw “no danger of immediate loss of [Indian] water rights.” With the Indian Service failing to recognize the need to legitimize Indian water rights, Congress felt little compunction to do so. Representative Franklin Mondell (R-WY) was quick to point out this lack of urgency. If the Indian Service saw no danger to Indian water rights then Congress had no reason to provide a statutory base for Pima rights.

When flooding in the winter of 1914-1915 caused heavy damage along the Gila River, Hayden believed it was the time for Congress to control the river. Recognizing Congress would not approve of the costly San Carlos project, Hayden and Ashurst instead focused on gaining approval to build a smaller project for the “benefit of the Indians.” It was advantageous, Hayden argued, to have a portion of the Florence diversion dam charged to private landowners since they would also benefit from it. The Pima and their neighbors received water from the same source, Hayden reasoned, and had a common interest that would bind them “for all time to come.”

Ashurst worked to secure an amendment to the bill adding a second diversion dam to be located on the reservation. Reed urged Sells to approve of the plan to build the second dam with a superstructure bridge over top. Olberg explained a bridge was “badly
needed by the Indians and the white people." Additionally, the dam was needed to divert water into the Santan Floodwater Canal, a proposition that depended at the time on brush dams. While ostensibly a means to provide the Indians with transportation over the river, the bridge was more the desire of A. J. Chandler, who sought to influence the development of a state highway connecting Phoenix and Tucson through his growing agricultural community.

The Senate Indian Affairs Committee was skeptical of the real intent of the FCGP, fearing another "white man’s proposition" designed to deprive the Pima of their water. Senator Harry Lane (D-OR) explained that Indians rarely "benefit from water … if the white man has the first opportunity." Despite the 1908 Winters decision upholding Gros Ventre and Assinboine rights on the Fort Belknap Reservation, upstream users continued to appropriate the waters of the Milk River. How would it be any different on the Pima Reservation, Lane inquired, if Congress should approve of the FCGP?

Senator Lane invited Samuel Brosius of the Indian Rights Association (IRA) to address the committee. Brosius had been involved in Pima water issues since 1911, when the IRA responded to the Pima’s appeal for justice. He recommended committee support for the bill but only if it guaranteed the enforcement of the prior rights of the Indians through the insertion of a clause clearly spelling out Pima water rights to 40,000 acres of

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646 Indian Appropriation Bill: Hearings before the Committee on Indian Affairs, United States Senate on H.R. 20150, 63rd Congress, 3rd Session (Washington, DC: GPO, 1915), p. 506.
land. Any water remaining after the Pima had received theirs could be made available to neighboring farmers.647

Hayden opposed legislation delineating Pima water rights. He and Merritt resisted specific quantities and acreage fearing they would bind the Indian Service so that it “could not do what was best.” Senator Robinson feared the omission of a dedicated water supply for the Pima, arguing that if the government agreed the Pima had prior water rights then “Why should it not be incorporated in the bill?” Robinson further feared that by not including clear language protecting Pima water rights, the Indian Service at a later date might “be forced to exercise a discretion that it might not want to exercise.”648

Senator Lane badgered Hayden on the quantity of Pima land that could be irrigated if the FCGP were approved. Acres under ditch and potential irrigated acres were crucial data needed to demonstrate allocation of water. Hayden, wanting the project approved, played his “Indian card.” The Pima’s current diversion of water was “below the white diversion,” but passage of the FCGP would “carry the Indian diversion up the river so that he will get an equal chance to obtain his share of the water.” Hayden clearly sought to ensure the appropriation of water for the reservation but without addressing Indian reserved rights. Since Hayden believed it was senseless to build another canal to deliver water to the reservation, he proposed using the existing off-reservation distribution canal and constructing a lateral to convey water to Pima farms.

647 Olberg recommended 50,000 acres based on the then current population of the reservation. Ibid, p. 507.
648 Indian Appropriation Bill: Hearings before the Committee on Indian Affairs, United States Senate on H.R. 20150. The Committee agreed and requested Merritt to return at a later date with “an amendment to the amendment” that clearly protected Pima rights to the water but at the same time gave the Secretary authority to make an agreement with non-Indian landowners for the acquisition of the Florence Canal.
To deliver water to the reservation, the United States would have to purchase the Florence Canal. Any lateral extension would have to cross private and public lands. While the 1890 Canal Act allowed such latitude, Hayden preferred an exchange for the right-of-way, with the government allowing non-Indian farmers to divert water from the same structure. Only if the government built and controlled the diversion dam on the Gila River and operated the distribution and lateral canals, would the Pima be assured of receiving their water. Ashurst was so confident the project would protect Pima water rights that he boasted in Arizona one had to be “an Indian to secure … your rights.”

Despite lacking a consensus on the meaning of Indian water rights, the House and the Senate agreed the most expedient means of resolving the Pima water dispute was to build a joint-use irrigation system that would distribute the benefits and costs of the project. In March 1915, the Senate Indian Affairs Committee recommended an appropriation not to exceed $175,000 to construct the Florence diversion dam. A House filibuster at the close of the 63rd Congress, however, prevented the bill from passing and it died.

After five years of discussion and debate, it was apparent that neither the Indian Service nor Congress fully understood or cared to pursue the matter of Indian reserved rights. The Indian Irrigation Service, meanwhile, continued to gather data in preparation for land severalty and to demonstrate Pima utilization of the water. Congress considered legislation but only within the context of a joint-use system that was based on prior

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649 If private citizens controlled the diversion, Hayden argued, more litigation would follow and if non-Indians were forced to turn some water back into the river for the benefit of the Indians it would be absorbed by the river and never make it to the reservation. Thus, the dam would be a “strategic advantage” to the Pima. See “Extracts from the Hearings Before the Senate Committee on Indian Affairs, Thursday, January 28, 1915,” in Diversion Dam on the Gila River At a Site Above Florence, Arizona, p. 9. “Erosion and Overflow, Gila River, Arizona,” Senate Report 262, 64th Congress, 1st Session (Washington, DC; GPO, March 16, 1916), p. 8.
appropriation rights. To appease the friends of the Indians, Hayden and Ashurst had to clearly show that the Pima were the primary beneficiaries of the project.

Map 11: Irrigation Projects on the Pima Reservation, 1908-1922

(Source: Author file)

To this end, the Indian Service began work on a series of reservation irrigation projects designed to protect existing Pima water and demonstrate that the Pima could farm more land if their full rights were protected. The centerpiece of the emerging irrigation system was the Sacaton (sometimes called Santan) Project. This project was designed to irrigate 10,000 acres on the north bank of the Gila River between Sacaton and
Stotonic, and centered around the construction of the Santan Floodwater Canal and the introduction of groundwater pumping on the reservation. The canal, which headed on the Gila River three miles east of Sacaton, was designed to convey episodic floodwater from the river onto land targeted for allotment. Ten pumping plants would supply the majority of water for irrigation.

Valentine optimistically reported over 4,500 acres irrigated in the Sacaton Project in 1911, with “the main canals … now built above 10,000 acres.” But when the IRA publicized the Pima cause, Congress was compelled to examine more closely irrigation matters in central Arizona, with the House Committee on Expenditures opening hearings in June 1911. Irrigation Engineer William Code opined that it would be impossible for the Pima to recover their low water rights now that the water had been used by upstream farmers for more than 25 years. Code did not regard it “as feasible to attempt to fight for water rights that had been taken away so many years before.”

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650 Annual Report of the Commissioner of Indian Affairs, 1911, p. 17. There were eight completed pumping stations “augment[ing] the flood waters of the river.”
651 Hearings before the Committee on Expenditures in the Interior Department of the House of Representatives on House Resolution No. 103 to Investigate the Expenditures in the Interior Department, (Washington, DC: GPO, 1911), part 16, pp. 654-656
By the spring of 1913, Olberg began constructing laterals to convey water to 9,090 acres staked and scheduled for allotment within the Sacaton Project. Nearly 7,800 acres were to be served with groundwater. Head gates and check structures were installed and new culverts and bridges were constructed. By 1915, nearly 60 miles of laterals had been built, irrigating 3,319 acres with ground and episodic floodwater. Despite high hopes, Olberg acknowledged that a maximum of 6,000 acres could be served by the project, just 60% of the Reclamation Service estimates.652

While a portion of the floodwater canal was completed, the means of diverting floodwaters from the Gila River into the canal were not. Lacking a permanent diversion dam, Olberg built a temporary brush dam across the river in an attempt to push water into the floodwater canal. The Pima, having built their own brush dam to channel water into the old Santan Canal, objected.653 The new canal crosscut the old one, making it impossible to use both systems concurrently. Concerns over allotment, groundwater use, incompatible delivery systems and insufficient floodwater resulted in the Santan Floodwater Canal becoming “completely choke[d]” with silt and impossible to operate “until a diversion dam” could be built.654

By 1915, the Sacaton Project extended west of Stotonic, where new problems arose, including well casings filling with silt. Winter flooding damaged both the laterals and the main canal. Olberg saw little value repairing the damage unless a permanent

diversion dam could be built at the head of the canal on the Gila River. To provide water to the allotments in the interim, Olberg capitulated to the demands of the Pima and diverted water through the old Santan Canal. Flood and groundwater from eight wells irrigated just 1,740 acres of land under the Sacaton Project by 1915. To put additional water to beneficial use—and in anticipation of land severalty on the south bank of the river—Olberg initiated the Little Gila Project in February of 1913. This project was designed to restore irrigation south of the main channel of the Gila River extending from Blackwater to Casa Blanca. The Little Gila for centuries had been used by the Pima to convey water from the main channel of the Gila River onto lands south of the river. The

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655 *Annual Report of the Irrigation Service*, fiscal year 1915. Assistant Engineer N.W. Irsfeld reported that 3,480 acres were under ditch. The remainder of the “approximately 15,000 acres” in the Santan District was “brush land outside the reach of irrigation absent a means of diverting water into the floodwater canal.” Work on the north bank was unpopular and resulted in difficulty getting Indian workers. This drove up the costs of the project. See “Olberg to Reed,” dated Sacaton, Arizona, February 26, 1914, in Olberg Letterbox, *Historical Research, 1913-1914*. The Sacaton Project cost $473,000 to construct. See *Statement showing designation of funds and amounts therefrom, by years, on the various units comprising the San Carlos Irrigation Project to June 30, 1929*, in the SCIP files.

The Little Gila reopened in the fall of 1913 “to safeguard the interests of the Indians in the waters of the Gila.” Before Olberg began work, he reconstructed a small lateral the Pima had built to irrigate a limited area of land in Blackwater after the Little Gila was closed. To protect their rights to this water, Olberg constructed a flume to carry the ditch over the Little Gila into the Blackwater Island District and then re-excavated the river and installed two wing dams to divert the natural flow of the Gila River onto Pima farmland on the south bank. The Little Gila now carried 300 cubic feet per second of water west for a distance of twenty miles.\footnote{Annual Report of the Irrigation Service, fiscal year 1913, p. 20.} By fall, Olberg expected to irrigate 1,000 acres of land with natural flow water in Blackwater.

The floods of 1914-1915 damaged the Little Gila, with silt and driftwood plugging the channel and destroying the Blackwater flume.\footnote{C.H. Southworth, “The History of Irrigation along the Gila River,” in San Carlos Irrigation Project, Arizona: Report to the Secretary of War of a Board of Engineer Officers, p. 130.} Three wagon bridges were also damaged and a half-mile of embankment on the south side of the Gila near Sacaton Flats washed away. More than a mile of the Sacaton Flats Canal was replaced in what Olberg coined the Sacaton Flats Project. More than 900 acres of agriculture was restored as a result of this project.\footnote{Annual Report of the Irrigation Service, fiscal year 1915, p. 46. See also Statement showing designation of funds and amounts therefrom, by years, on the various units comprising the San Carlos Irrigation Project to June 30, 1929. It cost $790 to complete the repairs.} Additional flood damage in Blackwater resulted in the Blackwater Project, designed “to retain the Indians’ rights to [Gila River] water.” Olberg—wishing to demonstrate actual Pima water utilization—rebuilt over 27,000 feet...
of ditch in Blackwater, reflecting the importance the Indian Service placed on beneficial use as a means of protecting Pima water rights. By 1915, the Blackwater Project was completed, with 2,000 acres in cultivation. Winter flooding limited full development of the Blackwater Project and pointed to a continuing need for “a permanent diversion dam” if the Pima were to beneficially use their water.

In November of 1913, Olberg began surveying land north of the Pima Agency on what was called the Agency Project. This project was designed to put Pima water to beneficial use on 1,870 acres of land two miles above Sacaton and lying on an island between the Gila and Little Gila rivers. Construction of 15,000 feet of irrigation laterals began in January 1914. This land was farmed until the opening of the Florence Canal in 1886 when, for lack of water, it “was abandoned.” The Indian Service scheduled the land for allotment once the laterals were constructed. Difficulties crossing the Agency grounds, however, left just 800 acres with irrigation.

In the spring of 1914, Olberg made plans to construct the largest irrigation project then attempted on the reservation. The Casa Blanca Project was designed to irrigate up to 35,000 acres with water channeled through the Little Gila River. While more land than necessary to “furnish 10 acres for each individual now living in the district,” Olberg informed Reed, the grandiose scale of the project was necessary “to keep the costs per acre as low as possible.” Olberg admitted cost was only part of the consideration. By 1914, Olberg began surveying land north of the Pima Agency on what was called the Agency Project. This project was designed to put Pima water to beneficial use on 1,870 acres of land two miles above Sacaton and lying on an island between the Gila and Little Gila rivers. Construction of 15,000 feet of irrigation laterals began in January 1914. This land was farmed until the opening of the Florence Canal in 1886 when, for lack of water, it “was abandoned.” The Indian Service scheduled the land for allotment once the laterals were constructed. Difficulties crossing the Agency grounds, however, left just 800 acres with irrigation. In the spring of 1914, Olberg made plans to construct the largest irrigation project then attempted on the reservation. The Casa Blanca Project was designed to irrigate up to 35,000 acres with water channeled through the Little Gila River. While more land than necessary to “furnish 10 acres for each individual now living in the district,” Olberg informed Reed, the grandiose scale of the project was necessary “to keep the costs per acre as low as possible.” Olberg admitted cost was only part of the consideration. By

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661 History of the Indians and Irrigation on Indian Reservations, p. 83. The Little Gila Project cost $21,197. See Statement showing designation of funds and amounts therefrom, by years, on the various units comprising the San Carlos Irrigation Project to June 30, 1929.
662 Annual Report of the Irrigation Service, fiscal year 1914, p. 7. The project cost $43,000 to complete. “Olberg to Reed,” dated Sacaton, Arizona, February 26, 1914, Olberg Letterbox, Historical Research, 1913-1914. The land was exceptionally fertile within the project with crops consistently awarded grand prize ribbons at the Pima Agricultural Fair held annually in Sacaton.
allotting land in Casa Blanca to those Pima and Maricopa living down river in the villages of Santa Cruz, Gila Crossing, Komatke and Maricopa Colony, the Indian Service could avoid “the losses that would occur if the water was used lower down the river.”

Olberg recognized the advantage of utilizing as much water as possible on the land as a means of protecting it under the beneficial use doctrine. N. W. Irsfeld, engineer in charge of the Casa Blanca Project, proposed heading a fifteen-mile-long canal on the Little Gila River to irrigate the land. While not yet surveyed, Olberg requested $15,000 to begin the project, which encompassed the villages of Sweetwater, Bapchule, Alkali, Wet Camp and Casa Blanca.

Superintendent Ralph Ward was enthused by the rapid development of irrigation works on the reservation. But while much of the new irrigation system was in place—at a cost of $932,911—water resources were inadequate. The Indian Service recognized it was in a race with off-reservation farmers to see who would first beneficially put the

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664 Ibid, 1917, p. 64. See also “Olberg to Reed,” dated Sacaton, Arizona, March 6, 1914, in Olberg Letterbox, From Central Office to Olberg, 1913-1914.
665 C.H. Southworth, pp. 136-137. The project also included lands in the Old Maricopa, Ancient Sweetwater, Mount Top and Sravna districts, each of which was traditionally farmed until the districts lost access to water with upstream diversions in the 1880s. An additional 9,984 acres was ready to be allotted within the Casa Blanca Project. See “Additional Unallotted Irrigable Lands Gila River Reservation Reserved for Future Allotments as Recommended in Letter of June 29, 1916,” in C.H. Southworth Letterbox, Historical Correspondence, 1914-1916. An additional 2,950 acres were set aside for allotment in the Sacaton Project. Of the 9,984 acres, more than three-fourths was withdrawn from allotment after passage of the Florence-Casa Grande Project bill, with 3,000 additional acres reserved within the Sacaton Project. See also Annual Report of the Irrigation Service, fiscal year 1916, pp. 55-56.
water to use. Reed recognized water resources in the West in general and on the Pima Reservation in particular were being rapidly depleted. Despite nearly a million dollar investment, the Indian Service’s beneficial use approach was tenable at best, as it could not divert a large enough flow of water to put the Pima back on a stable economic foundation. While there were 18,500 acres under ditch, in 1916, just 7,693 acres were actually irrigated and farmed.667

During the winter of 1916 another flood devastated the Gila River Valley, and this after flooding in the fall left the soil permeated with moisture. Heavy snowmelt in the upper reaches of the watershed kept the river flowing until the first of June.668 While the Pima put the water to good use in the spring, the winter flooding decimated their crops and damaged their villages. Thackery telegraphed Hayden that reservation damage surpassed $100,000, with an additional $40,000 damage off reservation. Canals were destroyed, head gates, check structures and brush dams washed out, and deep erosion occurred throughout the newly constructed irrigation facilities on the reservation. Some 3,000 Pima, Mexican and American farmers stood to lose their crops.669

In the spring of 1916, the House Committee on Indian Affairs again took up debate on the FCGP bill, believing Pima water rights had been adequately protected. While William Borland (D-MO) feared construction of the project would commit the government to building the larger and more costly San Carlos dam, Senator Charles

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667 Annual Statistical Report, Pima Agency, Sacaton, Arizona, 1916, p. 10. While survey work was begun on the west end of the reservation in 1914, it was not until 1922 that the Lower Gila Project was started for the purpose of developing 1,500 acres in the area of Santa Cruz.
Curtis (R-KN) remained skeptical the Pima would receive “all the water they need.” Ashurst assured Curtis the Pima would be first in line for water and then added, “any remaining [water … ] may be sold to the whites, [with] the … proceeds of the sale to be used for paying for this appropriation.” To ensure his vote, Curtis—a Kaw Indian—demanded the water be protected “for the use of the Indians,” even if they needed it all.670

Merritt did not wish to be bound by such restrictions and, in a personal letter to the Senator, argued Pima priorities were “thoroughly safeguarded and conserved,” with the secretary given “latitude” to negotiate with property owners off-reservation.671 The bill (HR 10385) included an ambiguous provision that water would be distributed to Indian and non-Indian landowners “in accordance with the[ir] respective rights and priorities” as “determined by agreement of the owners thereof.”672 When Lockwood issued his ruling in Lobb v. Avenente, Congress believed the decree prioritized Pima water rights to 35,000 acres of land and approved of the FCGP bill.673 On May 18, 1916, President Woodrow Wilson signed the bill into law, authorizing $75,000 to begin construction of a lower dam and bridge (Olberg Bridge and Sacaton Diversion Dam) and another $75,000 to begin construction of an upper diversion dam (Ashurst-Hayden

671 “Merritt to Curtis,” ibid.
673 The United States had a statutory obligation to protect Pima water in any court action by virtue of the Act of March 3, 1893 (27 stat. 631), which held: “In all States and Territories where there are reservations or allotted Indians the United States District Attorney shall represent them in all suits at law and equity.” The U.S. was derelict in protecting the rights of the Pima, especially by not intervening on behalf of the Pima in the Lobb vs. Avenente case. By not intervening, the United States failed to protect the reserved rights of the Pima, as set forth in the 1908 Winters vs. United States decision. Failure to declare waters of the Gila River as were necessary for the needs of the Indians ensured future litigation.
Diversion Dam).\textsuperscript{674} While the Pima were skeptical, Congress saw the bill as the first step in restoring Pima prosperity.\textsuperscript{675}

The FCGP was a joint-use irrigation system serving both Indian and non-Indian farmers. This was important as it demonstrated Congress intended for the reservation economy to be integrated and on par with that of local farmers. At the same time, the project was first and foremost for the benefit of the Pima, harnessing both the floodwaters and any remaining natural flow of the river and making them available to the Indians. But while the Senate debate clearly indicated a desire to provide the Pima with “all the water they needed,” the actual bill gave the secretary of the interior authority to negotiate a water division agreement between the Pima and their neighbors in the Florence-Casa Grande Valley.\textsuperscript{676} The project was conditioned on the ability of the secretary to make “satisfactory adjustments” in “accordance with the respective rights and priorities” of both parties as “determined by agreement of the owners thereof with the Secretary of the Interior.”\textsuperscript{677} Without a landowner’s agreement, there would be no Florence-Casa Grande Project.

The FCGP was to irrigate 62,000 acres of land in the Gila River and Florence-Casa Grande valleys. While Olberg sought to include 50,000 acres of Pima land—with rights to 175,000 acre-feet of water—within the project (based on a population of 5,000 Pima and Maricopa, each of whom would receive a ten acre irrigable allotment), the

\textsuperscript{674} Indian Appropriation Act for the fiscal year ending June 30, 1917.
\textsuperscript{676} Hearings on the Indian Appropriation Bill, 1917, p. 179. When Senator Charles Curtis asked whether or not the “Indians are to be supplied with all the water they need,” Ashurst responded “Yes.”
secretary included just 35,000 acres of Indian land and 27,000 acres of non-Indian land.\textsuperscript{678}

To irrigate Pima farmland, water would continue down the Gila River to be diverted by a diversion dam east of Sacaton into the Santan Floodwater and Little Gila (i.e., Casa Blanca) canals. In times of low flow, water for the Pima would be diverted through the government-purchased and newly renamed Florence-Casa Grande Canal and carried through the proposed Pima Lateral to the reservation.

Secretary John Barton Payne was given statutory authority to designate which lands would be made part of the FCGP. Negotiations between the secretary and off-reservation landowners began immediately. In March 1917, Florence landowners announced an agreement with Payne, only to rescind it in June. Work on the project came to a standstill. By summer, some landowners in Florence (Round Valley) incorporated under state law for the purpose of developing their own water source using groundwater. More than 5,000 acres was signed up by 1918, placing the FCGP in jeopardy. With the project at risk, off-reservation landowners “insisted on a division of the available waters.” Payne, desperately wanting to consummate an agreement, skirted the original Congressional intent of providing the Pima with all the water they might need and acquiesced to off-reservation demands. He then placed 3,500 ten-acre Pima irrigable “A” allotments on the eastern end of the reservation under the project.\textsuperscript{679}

\textsuperscript{678} Olberg recognized the existing Pima farmland would be more expensive to irrigate using modern irrigation. The question to be solved, Olberg queried Thackery, was balancing the greater expense “against the expediency of having the Indians moved to other lands.” While suggesting that the relocation of the Indians was an option, Olberg admitted the Pima would “seriously object to being removed.” “Olberg to Thackery,” dated September 4, 1913, in Olberg Letterbox, Historical Research 1914-1915. There were 11,039 acres in the Florence area protected by the Lockwood Decree that were included in the project, along with 1,961 acres along McClellan Wash. Some 14,000 off-reservation acres were divided evenly above and below McClellan Wash (or between Florence and Casa Grande).

Hayden, understanding the needs and desires of the farmers above the reservation and aware that his political future was at stake, resisted legislative limitations for just this reason. Recognizing off-reservation landowners would not consent to government acquisition of the Florence Canal if their rights and interests were not protected, Hayden used his influence to keep the FCGP bill free of encumbrances. Acknowledging the project could have been built similar to Reclamation Service projects, with the entire expense charged to the Indian lands and any surplus water furnished to private landowners “on a rental basis,” Hayden did not regard this as feasible. The only viable option was to grant the secretary discretionary authority to fashion an agreement with private landowners to bring them under the project and pay their share. This would protect their rights and those prioritized by the Lockwood Decree.680

Payne sent John T. Reeves to reach an agreement with off-reservation landowners, who had to convince the secretary as to the merit of their land and priority of their water rights. By May 1919, Reeves had contracts for more than 80,000 acres of land, ranging in size from 5 to 4,145 acres. By late summer, Reeves hammered out an agreement between the landowners and the Interior Department, with more than 85% of the eligible land under contract. In determining eligibility, Reeves gave priority to previously irrigated and cultivated land, as well as irrigated lands protected under the Lockwood Decree.

The Florence-Casa Grande landowners’ agreement included the owners of “practically all of the said lands to which water rights in the Gila River” were

appurtenant. These landowners, and the secretary on behalf of the Pima, placed their lands under burden of “a first lien” with the federal government. Deeds from “canal companies … and partly constructed canals and other property” were attached to the agreement, which included the statement that “a satisfactory accomplishment of the purpose of the [Florence-Casa Grande Project Act] as pertaining to providing irrigation for Indian lands in the Gila River Indian Reservation” had been met. Payne accepted the agreement with 357 landowners encompassing 26,994.26 acres of land. He approved the agreement on April 22, 1920, declaring the Florence-Casa Grande Project feasible.681

When the new agreement was negotiated, it included language that was not found in the authorizing legislation. The agreement, a result of political dialogue and realities that did not include mention of Pima reserved water rights, ...
divided the natural flow of the river between Pima farmers on the reservation and farmers in the Florence-Casa Grande Valley. Of the first 300 cubic feet per second (cfs) of water, the Indian share would be 60.6% of the flow, with non-Indians receiving 39.4%. The Indians would receive 51.7% of the flow between 301-600 cfs, with off-reservation lands receiving 48.3%. The Pima received 56.1% of any flow above 600 cfs. The cost of the project was to be apportioned according to division of the water. Pima farmers would be responsible for 35/62 of the project costs with off-reservation farmers assessed 27/62 of the cost.682

The agreement also included a provision that denied the Pima water during times of insufficient flow, raising old arguments from the nineteenth century that even if Florence farmers turned back the natural flow of the river it would not reach the reservation due to its absorption into the broad, alluvial riverbed. In times of diminished flow, when the Pima share was “too small to reach the Indian reservation,” the secretary could allow “all of the said water to be applied to the irrigation of privately owned lands in accordance with their priorities.” By so dividing the water, the time immemorial rights of the Pima to the waters of the Gila River were denied, weakening the foundation of the agreement from the beginning.683

To ensure completion of the project, construction on the Florence diversion dam had to commence within one year of May 1, 1920. On May 7, the Casa Grande Valley Dispatch confidently assured its readers that work would “start as soon as arrangements

682 “An Agreement of the Landowners to Induce the Secretary of the Interior to Undertake the Florence-Casa Grande Irrigation Project,” p. 1012.
683 See Ibid, p. 1011. Interestingly, in the same paragraph is found language that water losses are to be shared equitably.
can be made to get same under way." Olberg, who was in charge of designing the diversion dam, selected a site twelve miles east of Florence at Price Station on the Arizona Eastern Railroad. Here the Gila River flowed between two granitic outcroppings 400’ apart. The riverbed, however, was a deep alluvial canyon, with boring tests indicating sand to a depth of more than 100’. To avoid constructing a more costly dam anchored to bedrock, Olberg chose to construct an East Indian weir designed to withstand a flood of 150,000 cubic feet per second.

On May 10, 1922, Commissioner of Indian Affairs Charles Burke dedicated the Florence diversion dam, christening it Ashurst-Hayden Diversion Dam after its two primary sponsors. President Warren Harding congratulated Olberg on completion of the dam, which the President saw as ending “fifty years of strife and disputation between Indians and white (sic) regarding the distribution of the waters of the Gila River.”

Ashurst-Hayden Diversion Dam did little for the Pima. Water that was supposed to be delivered to the reservation went increasingly to the same water users as before. To better provide for the needs of the Pima, the FCGP Act authorized a second diversion dam with a bridge superstructure. Sacaton Dam—initially referred to as Santan Diversion Dam—was intended to complement Ashurst-Hayden Diversion Dam by

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684 The Landowner’s Agreement included the caveat that construction had to begin on the Florence Dam within two years of May 1, 1919. See “An Agreement of the Landowners to Induce the Secretary of the Interior to Undertake the Florence-Casa Grande Irrigation Project.” “Florence Diversion Dam Assured by Official Act of Secretary,” Casa Grande Valley Dispatch, May 7, 1920.


687 “Dedication Ceremony Ashurst-Hayden Dam,” in the Casa Grande Valley Dispatch, May 12, 1922. Reed congratulated Olberg on the “completion of the dam [which] is a long step toward the valley’s prosperity.” The original head of the Florence Canal no longer exists, as it was replaced by Ashurst-Hayden. During construction of the diversion dam, Olberg noted the presence of rock and brush from earlier diversion dams made construction of Ashurst-Hayden more difficult. Charles R. Olberg, History of the Construction of Ashurst-Hayden Dam, March 1, 1922, p. 57.

688 Indian Appropriation Act for the fiscal year ending June 30, 1917, 39 stat. 129. Another $125,000 was authorized by the Indian Appropriation Act for the fiscal year ending June 30, 1918, 39 Stat. 969 and 974.
catching additional floodwaters on the Gila River and diverting them into the Santan Floodwater Canal, twenty miles below the latter dam. Olberg believed the diversion dam was necessary to fully develop agriculture on the reservation. In 1919, just 2,783 acres of land was irrigated within the Sacaton Project and “[b]ut little more land can be brought under cultivation on this project” unless the diversion dam was constructed. Merritt believed enough water could be diverted for 30,000 acres in Casa Blanca.

While Sacaton dam and bridge were architecturally similar to Ashurst-Hayden (both were designed by Olberg), at 1,250’ in length it was three times as long. But while the Florence dam could be anchored to granitic rock on both ends, Sacaton dam could not. The south embankment was simply an earthen berm eight feet high. Because of the deep river alluvium, the dam was also of the East Indian type. A 1,200’ long guide bank made up of riprap and extending at a right angle to the east of the dam was constructed along the south bank of the river to channel water over the weir. Sluice gates were to be built on both ends of the dam to flush silt out into the river below. A canal was to be built south away from the dam to convey floodwater into the Little Gila (Casa Blanca) Canal and thus “enable a double diversion, one on each side of the river.”

Post war inflation escalated the cost of the project and the Indian Service was forced to ask Congress for additional funds. By May 1924, $700,000 was appropriated.

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690 Annual Report Southern California and Southern Arizona Reservations, fiscal year 1915, p. 43.
692 It included a fifteen feet wide upstream apron, a six feet wide main section beneath the weir and a fifty-two feet downstream apron. A large expanse of talus protected the downstream side of the bridge from erosion. The concrete was five feet thick under the weir itself (where the water pressure was greatest) and 1.5’ thick under the bridge piers.
693 Pima Indians and the San Carlos Irrigation Project, Hearings before the Committee on Indian Affairs on S. 966, p. 13.
for the dam and bridge. As the road from Chandler to Casa Grande neared completion in 1925, the Arizona Highway Department built a small concrete bridge to span the Santan Floodwater Canal on the north bank of the river to connect the highway with the bridge. The dam and bridge were completed on June 30, 1925, absent any public dedication. Burke christened the structure Sacaton Diversion Dam. Estimated to cost less than $175,000, the dam and bridge totaled $719,793, with more than $346,000 spent on the bridge. The first diversion of water occurred on April 3, 1926.

Congress authorized two diversion dams with the Florence-Casa Grande Project. While both were constructed, neither fulfilled the purpose for which they were

Figure 9:5. Olberg Bridge, to the right, was below the Sacaton division dam, located in the center of the picture above, taken in 1941. Photograph courtesy of the San Carlos Irrigation Project.

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694 43 stat. 33. Olberg was sent back to the Los Angeles office to begin designing Coolidge Dam, which had been approved by Congress in June 1924. *Annual Report Southern California and Southern Arizona Reservation*, fiscal year 1925, p. 77.


697 See *Survey of Conditions of the Indians in the United States, Part 6*, January 1930, 71st Congress, 2nd Session (Washington, DC: GPO, 1930) p. 2466. The gates and hydraulic machinery to operate the dam was not installed until the winter of 1926 and the dam was not considered operational until that fall. The buildings to house the transformers needed to electrically operate the gates and light the bridge were not completed until June 1927. *Annual Report Southern California and Southern Arizona Reservation*, fiscal year 1927, p. 93.
authorized. While the annual diversion of natural flowing water at Ashurst-Hayden averaged 84,434 acre-feet, at Sacaton Dam it was just 1,639 acre-feet. Additional groundwater was available to the Pima, although they received far less they expected and for which they had a statutory right. Groundwater was neither as good a quality nor culturally compatible to the Pima, who retained a deep attachment to the waters of the Keli Akimel—Gila River. Consequently, the FCGP benefited off-reservation farmers at the continued detriment of the Pima. Superintendent Albert Kneale later described the project—Sacaton Dam in particular—as “a failure so far as diverting water from the Gila River for irrigation purposes.” While “a most excellent dam[,] had there been any water to divert [it] would have demonstrated its serviceableness.” With Ashurst-Hayden Diversion Dam (and especially after the 1929 completion of Coolidge Dam 100 miles upstream), there was little water to divert at Sacaton Dam. Within a few years the dam silted over and lost its effectiveness.

The FCGP circumscribed the intent of Congress and did nothing to protect Pima water rights. Having water rights for 35,000 acres, the Pima struggled to farm one-fifth of the land. H. A. Brett, Assistant Engineer for the reservation, noted a 48% decrease in acreage due to “repeated crop failure.” Sells admitted the division of water was “manifestly unfair to the Indians.” The Indian Rights Association argued that “settlers control[led] the only canal available to carry water so that, during the past two years, very

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699 Kneale, p. 398. “[T]his was a diversion dam in name only, for there was nothing to divert.
701 Annual Report of the Irrigation Service, fiscal year 1919, pp. 34-36. This acreage did not include lands west of the Phoenix and Maricopa Railroad (Santa Cruz, Gila Crossing and Maricopa Colony). The acreage was broken down as follows: Blackwater Project: 1,245.4 acres; Agency Project: 1,231.5 acres; Sacaton Project 2,783.1 acres; and Casa Blanca Project, 2,433 acres. See also Annual Statistical Report, 1920, p.18. Of this land 2,500 acres was leased to the government. See Ibid, 1923, p. 25.
little water has been allowed to reach the Pima land.\footnote{Annual Report of the Board of Directors of the Indian Rights Association, 1922, p. 36. The Indian Rights Association detailed the activities of former Pima Agency Superintendent Frank Thackery, who had a financial interest in the 2,000 acre Shannon Ranch just above the reservation. Thackery not only diverted water from the river for this ranch, but he also sank wells that lowered the flow of the Gila River, further depriving the Pima of their water. See Annual Report of the Board of Directors of the Indian Rights Association, 1918, pp. 22-23.} The sinking of new wells off the reservation compounded matters and directly deprived the Pima of their water.\footnote{William Alexander Brown, Vice President of the IRA, lamented to H.M. Lord, director of the Bureau of the Budget, that the Pima were “now more helpless” than ever. Brown admonished Lord to consider a $500,000 appropriation to immediately begin building the necessary canals to deliver additional water to the reservation. Not less than $250,000, Brown reasoned, should be immediately appropriated to begin the construction of a delivery system. Annual Report of the Board of Directors of the Indian Rights Association, 1922, pp. 25-26.} For the first time, Pima lands were leased to outside growers. Indeed, the FCGP did not provide the boon to the Pima economy as some thought.

When Homer Snyder (R-NY), Chairman of the House Committee on Indian Affairs, inquired of Reed in what state of completion the irrigation project was on the reservation, Reed could only remark that it was “a long ways from being completed.”\footnote{Indians of the United States: Hearing Before the Committee on Indian Affairs, House of Representatives, p. 1003.} Despite the diversion dams, water remained insufficient and Pima rights to the use of the water were tenuous at best. Crops planted early in 1925, died from lack of water later in the year. The following year, Pima farmers in Casa Blanca, Sacaton Flats and Progressive Colony were “forced to give up farming operations to a large extent because of lack of water.”\footnote{“B.P. Six, Superintendent of the Pima Reservation, to N. W. Irsfeld, Engineer, United States Indian Service,” dated Pima Agency, Sacaton, Arizona, October 4, 1926, in SCIP files.} Indian farmers in Blackwater had water “for only about 150 acres.”\footnote{See 39 stat. 561, 974; 41 Stat. 3, 408, 552, 1225; 42 Stat. 33, 1141, 1174; 44 Stat. 453; and 45 Stat. 1562.} A five-year program to restore agriculture on the reservation failed, with many Pima “divorced from field and home” looking for work. By 1930, nearly $1,500,000 had been expended on the on-reservation FCGP.\footnote{Annual Report of the Board of Directors of the Indian Rights Association, 1917, p. 57. Kneale, pp. 396, 398.} While some officials boasted the Pima had been “generously provided for,” the reality was the irrigation works were “idle gestures.”\footnote{Annual Report of the Board of Directors of the Indian Rights Association, 1922, p. 36.}
Twelve years after its 1916 inception, the FCGP was merged into the San Carlos Irrigation Project (SCIP). In the years that followed, farmers above the reservation retained de facto rights of possession to a majority of the water, leaving the Pima without a full measure of the water to which they had a moral and legal entitlement. Insufficient water, lack of financing, bureaucratic restrictions and land fractionation resulting from the failed policy of allotment, and a “piecemeal” irrigation system resulted in much of the irrigable land on the reservation lying idle or being leased to non-Indian farmers. In the coming years, the Pima received an average of 35% of all water passing Ashurst-Hayden dam (54,657 acre-feet per year). Their neighbors in the Florence-Casa Grande Valley, meanwhile, received an average of 65% of the water (99,437 acre-feet per year). While the Pima pumped an additional 62,336 acre-feet of groundwater annually (59% of all groundwater), they failed to receive the quantity of natural flow water guaranteed them under the FCGP. Even after the San Carlos Irrigation Project—and the federal courts in 1935—further divided the water on project lands, the Pima received a lesser quantity (44% of the total water supply available within the SCIP area) than that to which they were entitled.

The Florence-Casa Grande Project, while successful in gaining support for Coolidge Dam and the San Carlos project, failed to alleviate the need for water on the reservation. By disregarding the issue of Pima reserved rights to the water in the first decades of the twentieth century, Congress delayed the necessity of dealing with the

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709 See Table 6, “Natural flow water diverted from Gila River,” Table 7, “Natural flow and stored water delivered to Indian Reservation and San Carlos Irrigation and Drainage District Canals;” Table 8, “Deliveries of pumped well water;” Table 9, “Deliveries of water to Indian Reservation and San Carlos Irrigation and Drainage District canal;” and Table 10, “Deliveries of water to Indian and District farms;” all in San Carlos Irrigation Project: Engineering Studies of Land and Water Resources (San Carlos Irrigation Project, Bureau of Indian Affairs, 1956), in SCIP files.
matter. By abdicating its fiduciary role in protecting Pima water rights, Congress confirmed the prophetic statement of Assistant Commissioner of Indian Affairs Edgar Merritt who declared that by ignoring the issue of Indian water rights, the United States would one day see Indian tribes take their claims to the federal courts for action.

The belated efforts of the government to restore irrigation works intended to set the Pima on the road to the economic prosperity they had once known did not materialize. These efforts were both too late and too ineffectual, as by 1920 non-Indian farmers upstream and just above and below the reservation controlled the water to such a degree that, despite a new irrigation system, the Pima had too little water to farm the land as they once had. The failure of the FCGP—and the related irrigation projects on the reservation—to restore their agrarian economy and the water necessary to sustain it brought an end to the initial phase of Pima water rights history. By 1925, the Pima would begin legal action in the federal courts. The modern Pima water rights era began, culminating in the 2004 Arizona Water Settlements Act.
American social and political thought shifted dramatically in the middle of the nineteenth century. Rooted in the romanticism of antebellum America and influenced by the growing acceptance of naturalism, this shift resulted in a new definition of governance based on economic liberalism. This liberalism was most evident in federal policies governing land and resources in the West and represented a distinctly American footprint of social thought and action.

This shift in social thought influenced the beliefs of many Americans regarding the West that gravely impacted the Pima and other tribal nations. These beliefs included a perception that the resources of the West were bountiful and endless, giving rise to a social attitude of improvidence that was demonstrated by emigrant and settler alike. Furthermore, the popular belief that settlement of the West awaited only the requisite American spirit and determination pervaded emigrant thought. It was, moreover, the national destiny to subdue, subjugate and settle the land and develop the resources of the West. But while in theory the West was settled under laissez faire governance—shaping these social beliefs—in reality it was economic liberalism that facilitated settlement and shaped social thought.

This economic liberalism was demonstrated by a myriad of federal actions, including the pre-emption acts that Congress periodically enacted to validate settler land titles. The 1862 Homestead Act and the corollary Desert Land Act of 1877 represent the
clearest examples of liberalism, providing settlers with legal (i.e., federally-sanctioned) rights in acquiring title to the land and making use of the water. When the National Reclamation Act is considered it is clear that federal policy—not laissez faire governance—enabled settlement of the land and provided settlers with the means of putting scarce water resources to beneficial use under local prior appropriation laws. All of this was facilitated with a complete disregard of Indian priority rights. As a result, American Indians—including the Pima—were displaced from the land and denied their rights to the use of western streams.

These federal actions represent direct federal intervention in populating the West and encouraging yeoman farmers among settlers. At the same time, these policies served to discourage yeoman Indian agriculture. The 1887 General Allotment Act further limited Indian agriculture by fractionating reservation land holdings and providing for the leasing of Indian land. The practical result was that tribal nations faced a juggernaut of continental imperialism.

This study is significant in that it not only illustrates the remarkable economic adaptations the Pima made in the nineteenth century but also because it demonstrates that convenient scholarly assumptions that American Indians were inherently unfit for, or unfamiliar with, Western economies are specious. It was not the triumph of Western civilization that displaced the Pima from the national and their traditional agricultural economy but discriminating federal policies.

The Pima quickly recognized the advantages of joining the national economy, but they did not give up their sovereignty in so doing. In fact, they repeatedly asserted
sovereignty over their land, water and people, as demonstrated by Antonio Azul’s visit to Los Nogales in 1855 and his demand that the overland mail lines respect Pima resources. This was further demonstrated by Pima participation in the Arizona volunteers after the Civil War, as the Pima understood that their protection of the national transportation routes through central Arizona also protected their own economic interests in the growing territorial economy. While not altruistic, the Pima were not materialistic, desiring the technology by which they might expand their economy, improve their standard of living and gain access to new trade goods.

The establishment of the Southern Trail through the villages proved to be an economic boon to the Pima, whose economy rapidly expanded after 1848. Tens of thousands of emigrants passed through the villages, purchasing or trading for food and forage crops. While the Pima initially accepted red flannel and white muslin as trade for their crops, by 1850 they demanded silver and gold, using the coin to purchase goods directly from merchants in Tucson. The opening of the national road through the villages in the late 1850s further expanded their economy. While the Pima sold 145,000 pounds of grain in 1858, within four years they surpassed 2,000,000 pounds in annual sales to the military alone. Pima farmers constructed new acequias upstream of the villages in 1858 and, again, in 1859. By 1860 the Pima grew more than 11,640,000 pounds of grain and 15,120,000 pounds of corn.

Pima desire for technology was fueled by emigrant traffic and after 1850 their demand for agricultural technology rapidly increased. Tools, metal ploughs, seed and other forms of farm implements—including the education to employ it—were coveted by
the Pima so that they might cultivate additional lands. This is further witnessed by the fact that the Pima sought oxen, mules and other draft animals, indicating that their mode of agriculture was changing from manpower to animal power. As a result, the Pima were entering a market economy that might well have paralleled that of local settlers had it not been capriciously strangled. Federal policy encouraged American Indians to become cultivators of the soil; the Pima, already cultivators, demonstrated their commitment to this policy and repeatedly proved that they were committed to continuing and expanding their agrarian economy.

The newfound wealth among the Pima would not last. In 1863, Charles Poston informed federal officials of the three most important considerations facing the Pima: water, water and water. Should non-Indian settlement above the villages occur without protecting Pima water, there would be trouble. In 1868, the crisis erupted when settlers in Florence intentionally diverted and wasted river water to deprive the Pima of the water needed to irrigate their crops. By 1872, settlers in the upper Gila Valley added to the users above the villages.

These events upstream of the Pima were sanctioned by liberal federal policies. Following the requirements of federal law, settlers were forced to apply water to their land or risk losing it and any improvements they made. As settlers gained political hegemony, they constructed the Florence Canal, which further deprived the Pima of their rights to Gila River water. Increasingly, what water reached the reservation came in short ephemeral floods that, due to environmental changes in the river system, altered the course of the Gila River. By 1905, geomorphologic changes in the river channel forced
the Pima to abandon most of their traditional irrigation system. To irrigate Pima fields now required a costly conveyance system that headed further upstream. Continued diversions resulted in the Pima share of the river declining to less than 30% of the total flow.

As non-Indians gained control of the land and water resources they lobbied federal officials to enact a national reclamation policy. The organization of the National Irrigation Association led to a national lobbying effort advocating federal subsidies to reclaim the remaining arable lands of the West. To support its cause and provide a strong moral argument for federal involvement, the National Irrigation Association used the Pima as its national poster child, blanketing the country with scores of media reports extolling Pima agricultural virtues and lamenting the current Pima crisis. The message was clear: the only solution to the reclamation needs of the West was federal legislation.

Congress responded with the National Reclamation Act of 1902. But there was little benefit to the Pima who were not invited to participate in the act. Iron triangles consisting of non-Indian water users, federal agencies and Congressional committees, directed, controlled and manipulated federal water policy. This select membership intentionally disregarded Indian water needs and rights. The Pima were further disenfranchised and, with continuing crop failures, they planted less. Smaller fields resulted in reduced yields, which further lowered expectations. In the end, the Pima scaled down their expectations and standard of living, and found themselves enduring nearly four decades of famine and poverty.
To provide for their families, Pima men cut tens of thousands of cords of firewood from the once vast mesquite bosques that grew across the reservation. Between 1899 and 1905 the Pima cut an average of 11,000 cords of firewood to sell off the reservation. At the same time they grew less than half (23,982 bushels) the grain needed (50,000 bushels) to subsist. Facing desperate conditions and severe deprivation, the Pima petitioned the American people and each member of the U.S. Congress in an effort to restore their rights to the waters of the Gila River.

Protection of their water was the one area over which the Pima lacked control. For this, they were reliant on the U.S. Government. The protection of their water and the maintenance of their hydraulic-based economy were of great importance to the Pima for self-evident reasons. Less apparent and often overlooked was the importance to the United States. Beyond their role of protecting travelers and providing them with food and forage crops—enabling the United States to control and root settlement in the West—the Pima served the United States well. Congress established and the Indian Service implemented a policy of encouraging all American Indians to become yeoman Jeffersonian farmers, with the Pima a dynamic example of what tribes could do. Many tribes made, or attempted to make, this cultural and economic adaptation. Yet, the success of American Indian hydraulic-based economies rarely matched the rhetoric of policy-makers. Water or lack thereof was clearly the deciding factor in the success of the Pima economy. By failing to protect Pima water and involvement in the national economy, the United States undermined its own policy of pastoralizing all American
Indians and lost the opportunity to demonstrate its commitment to the policies defined by Congress.

Moreover, federal policy was inconsistent, failing entirely to protect the cornerstone of Indian policy—the water upon which agriculture depended. While some tribes struggled in adapting to market forces, the Pima did not, readily adapting only to be systematically squeezed out of the market by economic liberalism that benefited non-Indian settlers. In all of this, the United States failed to grasp the opportunity to demonstrate its commitment to tribal nations that the government was sincere in its efforts to assist in their transition to an agrarian economy, a position best explained by the national adoption of the Social Darwinian “survival of the fittest” social construct. To tribal nations willing to adopt an agrarian economy the Pima might well have served as the model upon which they could look to find success.

The United States had ample opportunity to correct its policy shortcomings. The Pima repeatedly sought federal protection of their water and, at the same time, demonstrated their loyalty to the federal government. Already industrious cultivators, the Pima sought inclusion in the national economy. Yet, rather than protect their legal rights to the water supporting the Pima economy, the United States instead attempted to relocate and pacify the Indians, turning friendship into cynicism and distrust. Not willing to make the necessary moral and legal adjustments incumbent upon the United States Government, federal officials instead watched as Pima agricultural production declined to subsistence levels and below, eventually resulting in widespread starvation and famine on the reservation.
Ironically, Pima hospitality, economic success and friendliness stimulated the very settlement above the reservation that led to the collapse of their economy. Explorer and emigrant trails served as the commercial corridors through which missionaries, trappers, miners, soldiers and settlers entered and eventually settled near the Pima villages. These highways encouraged commercialization of the Pima economy but they also brought settlement above the villages that competed with the Pima for the limited water in the Gila River. Following the dictates of liberal land and resource laws, these settlers repaid Pima kindness by appropriating the land and water for their own benefit.

The Pima initially requested federal support for their water rights in 1871 and the owners of the Florence Canal Company prepared for such litigation in 1886, although in neither instance did the U.S. Government attempt to protect Pima water. In 1904, the Indian Service again rejected federal action, believing the estimated cost of protecting Pima water rights unworthy of the expense. Not until 1913 did the Indian Service initiate an adjudication survey, belatedly recognizing that if federal action were not taken Pima rights to water might be permanently lost.

The adjudication survey proved to be a compelling argument that demonstrated Pima agriculture and the Pima economy had been destroyed. Compared to land once irrigated by the Pima, fields cultivated in 1914 were 21% smaller and used considerably less water. With land severalty predicated on the premise that the Pima had an equal chance to participate in the national and local economy, the survey illustrated startling results. While 6% of Arizona fields were sown to grain, more than 82% of Pima fields were in grain, indicting the economy of the state was not equal to the reservation. When
water was available the Pima grew a disproportionate share of food crops—grain in particular—relative to state proportional calculations. Furthermore, water deprivation resulted in significantly smaller agricultural fields, with mean field sizes more than 40% smaller than the older and traditionally farmed Pima fields. While the adjudication survey aided in the passage of the Florence-Casa Grande Project in 1916, it did little to restore water to the Pima. Upstream users continued to draw their water out of the river above the villages before it reached the Indian fields below.

Economic liberalism had several significant effects on the Pima. Initially, it fostered an economic boon among the Pima (1846-1868) that resulted in greater material prosperity, expansion of the Pima economy and an increase in acreage under irrigation. New ditches were extended above the villages and away from the Gila River, resulting in an era of unprecedented economic growth among the Pima. This era represents the golden age of Pima agriculture and the Pima economy. But as settlement above the reservation rooted and expanded after 1864, a second stage of economic liberalism resulted in water deprivation (1869-1891). During this era the Pima share of the river water declined year-by-year until it resulted in widespread famine throughout the villages. The final stage of economic liberalism culminated in the complete economic privation of the Pima (1891-1921). Within this timeframe the Pima faced starvation, near complete water deprivation and extreme poverty. Moreover, geomorphologic changes in the Gila River rendered the traditional Pima irrigation system completely unworkable. Short, ephemeral flows in the Gila River no longer reached Pima fields.
Despite deprivation, the Pima retained reserved rights to the water necessary to make their reservation a homeland. In this respect a metaphorical Damoclean Sword was raised above the heads of the settlers who used water that legally belonged to the Pima. Enfranchised and politically involved, these irrigators continued to use the water to the detriment of the Pima. It was this use—premised on economic liberalism—that destroyed the Pima economy. If not for liberal federal policies, the Pima would have equaled and perhaps even exceeded their neighbors in agricultural output and remained part of the national economy. While the goal of yeoman Jeffersonian farmers in Indian Country made for good policy, for the Pima it was simply rhetoric and resulted in economic devastation.

The success of off-reservation irrigated agriculture in south-central Arizona placed a long-lasting strain on the Pima that, in time, deprived them of the means of earning a living. This reality points to several important final thoughts. First, the Pima were not passive participants in these events. In fact, they were most versatile in dealing with this water crisis. To the extent possible, they adapted to water shortages in creative ways. For one they reduced the amount of land they cultivated, demonstrating their commitment to an agricultural economy. They also eliminated the least productive lands from their crop rotation, a measure that resulted in further crop reductions. In a number of instances, they abandoned villages most impacted by water losses and relocated them downstream in order to maintain a shadow of their former economy. Perhaps most telling was the shifting of their agrarian practices from water intensive crops to those less
intensive. The practical result of these shifts demonstrates the Pima desired to remain farmers, even though their economy had been reduced to mere subsistence by 1890.

Secondly, it was not Pima ineptness or inability to adapt to a Western-style economy that resulted in their displacement from the national market. Liberal American resource policies—including the improvidence they engendered, the political schemes they fostered, and the land severalty policies they encouraged—created challenges that Social Darwinist attributed to “survival of the fittest.” If the Pima were unable to adjust, then it was they—not federal law—that was responsible. Ignored completely is the fact that the Pima were afforded no legal protection of their water resources, without which their economy could not be sustained.

In the final analysis, the evidence supports the thesis that had Pima farmers not been deprived of their rights and access to the waters of the Gila River, they would have continued their successful adaptation to a commercial economy. In fact, they would not only have continued this course but they also would have equaled and perhaps even surpassed their neighbors in economic output had they not been handicapped by economic liberalism. It was through the vehicle of federal and territorial laws that the Pima were denied the right to continue their extraordinary agricultural economic success in the riverine deserts of Arizona.

**Epilogue**

In 1923, insufficient water in the Gila River led to a complete loss of the Pima wheat crop, prompting Commissioner of Indian Affairs Charles Burke to request legal action on behalf of the Pima against upstream users. Attorney John Truesdell
recommended the Justice Department file a general adjudication on the Gila River in federal court to determine priorities. While Congress enacted into law the San Carlos bill in 1924, creating the San Carlos Irrigation Project (SCIP) and Coolidge Dam, Truesdell pushed forward with litigation. On October 4, 1925, nearly forty years after the Pima had originally requested government intervention on their behalf, the Justice Department initiated proceedings against upstream users in United States v. Gila Valley Irrigation District.

When Congress agreed to construct Coolidge Dam, the Pima were to receive their water before all other users. Truesdell, however, worked toward securing water for ten irrigable acres for each of the Pima and Maricopa (totaling 49,896 acres plus 650 acres for government purposes) rather than asserting Pima claims to the entire natural flow of the river based on the proposition that if it were not for upstream users the Pima would have continued to expand their agricultural endeavors. On December 5, 1927, when suit was filed in the U.S. District Court in Tucson, many expert witnesses were called upon to testify but none was Pima, completely disenfranchising them. By 1934, government attorneys had agreed in principle to equally divide the water that would be stored behind Coolidge Dam, despite the protests of the Pima that the intent of the San Carlos bill was to provide them with all the water they might need before any other user was served.

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By June of 1935 the federal district court in Tucson prepared to issue its ruling calling for an equal division of stored and pumped water. The Pima, having priority rights to the natural flow of the Gila, objected and did not consent to the decision, attempting to intervene on their own behalf, an effort that was rejected by the court when it confirmed the Gila Decree. Federal attorneys representing the Pima feared the court would not sustain reserved rights and instead agreed to accept 210,000 acre feet of water for the Pima under time immemorial rights. Upper Gila Valley and Florence-Casa Grande farmers retained their rights to water.

The ink on the decree was barely dry when the first challenge appeared in 1939. Upper Gila Valley users argued all water flowing into San Carlos Reservoir was temporarily impounded and was technically stored water subject to allocation. The court rejected this argument and ruled water flowing into the reservoir with an equal amount flowing out was not stored water. Not yet five years old, upstream users were already seeking to gain access to Pima priority rights to the natural flow of the Gila as determined in the Gila Decree. Over the next sixty years government attorneys litigated Pima rights, with the Pima even filing suit in 1951 under the provisions of the Indian Claims Commission Act. Despite appeals and intervention, the Pima still had insufficient water for their land. Having water rights to 50,000 acres of land under the SCIP system, insufficient water meant the Pima were unable to cultivate more than 35,322 acres.

(Washington, DC: GPO, 1949), p. 5. Senator Ernest McFarland (D-AZ) substantiated the Pima claim that only one of four acres on the reservation could be irrigated.

Gila Valley Irrigation District v. United States, 118 F2d 507 (1941).

In 1948, Pima Tribal Governor David A. Johnson informed Senator Ernest W. McFarland (D-AZ) that the Pima were open to a plan that might bring Colorado River water to central Arizona. “If it will do us good, we want it,” Johnson explained, but “if it will take us into court later on, we don’t want it.” McFarland opened hearings on a proposal to bring Colorado River water to central Arizona to be used, in part, for Indian tribes without adequate water. As elected leader of the Pima, Johnson, all too familiar with empty commitments and insufficient water, stressed the desire of the Pima to secure water to meet their needs.715 Because Colorado River water was some of the last remaining unappropriated water available in Arizona, there was little chance of the Central Arizona Project (CAP) being approved by Congress until the matter of Indian water rights was settled. In 1957, U.S. Attorney General David Warner informed Simon H. Rifkind, special master for the Colorado River in the Arizona v. California case, that Indian tribes along the river were entitled to water as well. Rifkind also recognized Colorado River water might be used to satisfy Indian water claims in central Arizona—including the claims of the Gila River Indian Community. There was “enough [Colorado River] water,” Rifkind argued, “to satisfy the future expanding agriculture and related water needs of each Indian reservation” in central Arizona. This opened the door to bringing Colorado River water to the Pima to be used as a substitute source for an over-appropriated Gila River.716

715 Bridge Canyon Project, pp. 416-417.
716 Simon Rifkind, Special Master, Arizona v. California Report, December 5, 1960, p. 256, added that “Furthermore, the claims of the United States to water from the Colorado River for the benefit of Indian reservations are of such great magnitude that failure to adjudicate them would leave a cloud on the legal availability of substantial amounts of mainstream water for use by non-Indian projects.”
When the Central Arizona Project was authorized by Congress, in 1968, the political maneuvering regarding allocation of the water began. In 1971, five central Arizona Indian tribes—Gila River Indian Community, Salt River Pima-Maricopa Indian Community, Fort McDowell Yavapai Nation, Ak-Chin Indian Community and Tohono O’odham Nation—requested 1,219,168 acre-feet of CAP water based on the application of the practicably irrigable acreage (PIA) standard to each of the reservations. Non-Indian users requested an additional 4,175,137 acre-feet, for a total request of 5,394,305 acre-feet, nearly four times the expected annual delivery capacity and two times Arizona’s total entitlement of 2.8 million acre-feet.\textsuperscript{717} The following year, the Pima encouraged the secretary of the interior to approve their rights to irrigate all of their San Carlos Project (50,000 acres), Gila Crossing (2,900 acres) and Haggard Decree (1,500 acres) lands as well as an additional 25,000 acres of irrigable land.\textsuperscript{718} At the same time, the Gila River Indian Community feared “non-Indian interests [were] actively conniving to steal [its] water rights.”\textsuperscript{719} In 1975, Interior Secretary Rogers C. B. Morton printed in the Federal

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|}
\hline
Entity & Irrigation & M & I & Recreation & Total \\
\hline
Ak Chin & 78,768 & --- & --- & 78,768 \\
Fort McDowell & 5,000 & 25,000 & --- & 30,000 \\
Gila River & 436,000 & --- & --- & 436,000 \\
Salt River & 77,000 & 33,000 & --- & 110,000 \\
Tohono O’odham & 394,400 & 50,000 & --- & 444,400 \\
San Carlos Project (Indian Irrigation) & 120,000 & --- & --- & 120,000 \\
Non-Indian & 2,959,162 & 1,010,575 & 205,400 & 4,175,137 \\
Totals & 4,069,930 & 1,118,575 & 205,400 & 5,394,305 \\
\hline
\end{tabular}
\caption{Water requests as follows:}
\end{table}


In addition to the above tribes, non-Indian requests came from three individuals, thirteen utility and/or water companies, fifteen cities, nine governmental entities and twenty-five irrigation districts.


Register a proposed allocation of 176,000 acre-feet of CAP water for the Gila River Indian Community.\textsuperscript{720}

Pima Tribal Governor Alexander Lewis, Sr., objected to this allocation in a letter to Morton, arguing the proposed amount would limit the tribe to “presently-developed lands” when there were more than 250,000 acres of “reasonably irrigable lands” that could be served with 1,350,000 acre-feet of water. Nonetheless, Lewis, desirous of a “friendly settlement,” suggested the tribe would accept “not less than 278,000 acre-feet per annum.” Z. Simpson Cox, the lead attorney for the Pima, threatened to initiate litigation “and legal and political protests” if the tribe did not receive its fair share of water.\textsuperscript{721}

By 1975, the five central Arizona tribes formally joined together to invoke Indian reserved rights to irrigate all Practicably Irrigable Acreage land (lands that could be reasonable irrigated) and demanded that the rights of each of the tribes be determined before any CAP water was allocated. In October, the Senate opened hearings on central Arizona Indian water rights, during which Lloyd A. Allison, a Pima farmer and spokesman for the Five Central Tribes of Arizona, requested the Senate not to confirm any CAP allocations “until there has been a full and final settlement of the water rights of each of the five tribes.”\textsuperscript{722} The following March, Senator Edward Kennedy (D-MA) introduced the Central Arizona Indian Water Resources Act of 1976, a bill that directed

\textsuperscript{720} Federal Register, 40:76, April 18, 1975, p. 17299. The Indian response can be found in Comments, Suggestions and Objectives Regarding Proposed Allocation of Central Arizona Project Water for Indian Use, (Phoenix, Arizona: The Five Central Arizona Indian Tribes, 1975), in Indian Water Rights of the Five Central Arizona Indian Tribes, Central Arizona Project Library.
\textsuperscript{722} Indian Water Rights of the Five Central Tribes of Arizona: Hearings before the Committee on Interior and Insular Affairs, United States Senate, 94th Session, 1st Session, on Water Rights of Ak Chin Indian Reservation, Ft. McDowell Reservation, Gila River Indian Reservation, Papago Indian Reservation, and Salt River Pima-Maricopa Indian Reservation, October 23 and 24, 1975 (Washington, DC: GPO, 1976), p. 4.
the secretary of the interior to “acquire, by purchase or eminent domain,” 170,000 acres of non-Indian land with surface water rights and transfer them to the five central Arizona tribes for the purpose of removing “the cloud over water rights in central Arizona.”

The bill represented a tangible Damoclean sword to state interests and was bitterly opposed and ultimately put to rest when the Bureau of Reclamation reported it would not solve Indian water rights because it dealt only with surface rights. In October, Interior Secretary Thomas Kleppe published a revised decision of CAP water allocations in the Federal Register, providing the Pima with 173,100 acre-feet of water. The Pima then filed suit against the federal government, seeking 1,188,000 acre-feet of CAP water, “all the water” behind Coolidge Dam and “not less than ten percent of the Salt River Project.” In April 1979, the Arizona legislature enacted a bill transferring all water rights determinations to the Arizona Superior Court and, despite the appeals of the Pima and other tribes, the U.S. Supreme Court upheld the transfer with the San Carlos decision of 1983.

In the meantime, as the courts moved toward state jurisdiction and quantification of water rights, President Jimmy Carter initiated a plan for water policy reform that

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723 “Central Arizona Indian Water Resources Act of 1976” in The Congressional Record, April 13, 1976, 122:9, pp. 10644-10645. Water would have been allocated for the following acres: Ak Chin Indian Community 19,000 acres; Fort McDowell Yavapai Nation 3,300 acres; Tohono O’odham Nation 29,500 acres; San Xavier District 9,000 acres; Salt River Pima-Maricopa Indian Community 30,500; and Gila River Indian Community 118,000 acres. The Kennedy bill was designed to force a settlement of Indian water claims prior to a final allocation of CAP water. See ibid, p. 10644. The lands to be purchased were to be in the Wellton-Mohawk Irrigation District in southwestern Arizona. Kennedy targeted these lands under the assumption it would be less expensive to purchase the land and transfer the water rights rather than construct a “$1 billion” tax payer assisted desalting plant to fulfill US obligations to Mexico. See The Congressional Record, June 21, 1976, 122:16, p. 19446. The Pima’s claims to the Salt River would not have been affected by the act.


725 Federal Register, 41:202, October 18, 1976, p. 45889.

encouraged negotiated settlements. In February 1978, Interior Solicitor Leo M. Krulitz informed Interior Secretary Cecil Andrus that it made more sense to negotiate settlements with each of the central Arizona tribes on a “tribe-by-tribe” basis and that the best way to effect such a plan was to use litigation as an inducement. By April 1979, Interior was caucusing to “plan and execute departmental actions which are calculated to encourage water rights settlement negotiations, or other action which by themselves will make water available in Arizona for use by the Indian tribes.”

By June, Andrus grew impatient that the Gila River Indian Community was not being “treated equitably” and stated that if the claims of the Indians could not be worked out he would “consider reopening the October 1976 allocation regarding Indian use of CAP water.” Arizona officials publicly complained that CAP allocations were being held “hostage” to Indian water claims, with Arizona’s congressional delegates fearing the main stem CAP system would soon be completed before “actual delivery of water” could be made.

State legislators in June 1980 enacted into law the Groundwater Management Act, which created four Active Management Areas in the populated regions of the state and established the Arizona Department of Water Resources (ADWR). The ADWR then began advocating that tribal nations—including the Pima—be required to accept treated

727 “Concern over CAP may speed Indian talks,” Arizona Republic, July 25, 1979, B-4. Memo from Leo M. Krulitz to Secretary Cecil Andrus, n.d., in the Central Arizona Project library, (file Arizona Indian Water Rights). Thomas W. Frederick, Associate Solicitor, to Leo M. Krulitz, Solicitor, dated June 15, 1979, in Central Arizona Project library, (file: Arizona Indian Water Rights). Interior was forcing local water users to come to the table by denying a $7.8 million loan to the Roosevelt Water Conservation District (RWCD) and investigating whether the Salt River Project should enlarge its borders to include part of the Gila River Indian Community. Associate Interior Solicitor Thomas Frederick concluded non-CAP water would reduce the need for continued negotiations with the RWCD and Salt River Project to provide water to the Indians.

728 See “U.S. accused of pressuring state on Indian water rights,” Arizona Republic, July 14, 1979, B-1 and “Concern over CAP may speed Indian Talks.”

729 “Interior Secretary is delaying delivery of CAP water, 4 congressmen charge,” Arizona Republic, July 30, 1979, B-1. Arizona Republicans Barry Goldwater, John J. Rhodes, Eldon Rudd and Bob Stump signed the letter to the secretary. Democrats Dennis Deconcini and Morris Udall did not, believing it would not help the situation.

730 The four AMAs were Prescott, Phoenix, Pinal and Tucson. A fifth AMA was added in 1994 for Santa Cruz County.
effluent water in exchange for some of their CAP allocations. In the case of the Pima, the ADWR wanted the tribe to accept up to 50,000 acre-feet of Chandler effluent water and another 25,000 acre-feet of effluent from the City of Phoenix. The Bureau of Indian Affairs opposed these proposed exchanges, arguing a combination of treated effluent and saline groundwater “could have disastrous long-term effects” on Indian agricultural lands.\(^731\) Andrus indicated he would act “upon suggestions” made by Arizona officials freeing up additional CAP municipal and industrial (M&I) water for non-Indian use. The Gila River Indian Community opposed such an exchange, asking for an additional 103,476 acre-feet of CAP water in addition to the 173,100 acre feet already allocated in 1976.\(^732\)

By October, the Gila River tribal council acted to officially oppose any mandatory exchange of CAP water for treated effluent. In December, Andrus announced a revised CAP water allocation plan. Gila River retained its 173,100 acre-feet of water but non-Indian M&I users now “share[d] a first priority,” meaning the Indians’ priority could be reduced by 10% in time of shortage, placing their water on equal terms with non-Indian M&I users.\(^733\) The ADWR then filed suit against Andrus to bar the Indian’s “share[d] first priority” and the lack of effluent exchange.\(^734\) Nonetheless, by mid-December, eleven Arizona tribes—but not Gila River—signed water contracts. Pima Tribal Governor


\(^{734}\) “Arizona files suit to block Andrus on water shares,” Arizona Republic, December 2, 1980, A-1. Senator Dennis DeConcini (D-AZ) suggested the lawsuit would be dropped if the incoming secretary James Watt would remove the Indian priority and require tribes to accept effluent in times of shortages. See “DeConcini seeks CAP compromise,” Arizona Republic, December 20, 1980, C-1. The lawsuit was dropped in March 1981, even though no concessions were made by Watt. Representative Morris Udall (D-AZ) had much to do with this as he believed the lawsuit to be “a mistake.” Udall thought the Indians could be induced to accept effluent by offering money. See “Udall says legislation could solve Indians’ CAP problems,” Tucson Daily Citizen, January 13, 1981.
Alexander Lewis Sr. suggested the tribe did not sign a contract because it feared a new presidential administration might void it and the Pima did not wish to have two irrigation delivery systems: one for treated effluent and one for CAP water.\textsuperscript{735}

In December 1981, the Bureau of Reclamation issued a draft CAP environmental impact statement, which included a provision that changed the formula for Pima priority water, increasing to 25% its reduction in times of shortages and left the door open for mandatory effluent exchanges. The rationale for these changes was the belief that the Gila River Indian Community sat upon “one of the best developable ground water sources in the State” and that the tribe also had “access to a developed surface supply of irrigation water through the San Carlos Project.”\textsuperscript{736} Just 75% of Pima CAP water would be first priority and this while 90% of other Indian and non-Indian M&I water would have such priority, a proposition the Pima saw as “unfair” and discriminatory.\textsuperscript{737} On March 24, 1983, Interior Secretary James Watt published the allocations in the \textit{Federal Register} making them official.\textsuperscript{738}

The Pima, aware successful litigation might provide “paper” entitlements without financial assistance to put the water to actual use, were encouraged by federal officials to sign a contract. Consequently, after the allocation of CAP water was official, the tribe began negotiating a water delivery contract. In March 1985, Pima Tribal Governor

\textsuperscript{735} “Tribes sign CAP pacts before judge can act,” \textit{Arizona Republic}, December 13, 1980, A-1.


\textsuperscript{737} “CAP water allotment ‘irrational,’ tribe says,” \textit{Arizona Republic}, February 19, 1983, A-1. The tribe objected to the quantity, quality, cost and poor monitoring efforts of such water.

\textsuperscript{738} \textit{Federal Register}, 48:58, March 24, 1983, p. 12452. The Pima continued to meet with Salt River Valley cities to solicit their support in encouraging the Interior Department to drop its mandatory exchange clause. Chandler, Mesa and Gilbert all agreed and sent letters in support of the tribe. This urban support largely grew from self-interest, as cities that exchanged effluent for Indian CAP water would have been forced to reduce their M&I CAP water supply by a like amount. In effect, the cities—now finding urban uses for the water—would have given up such effluent without a tangible benefit. In November 1983, Arizona Governor Rose Mofford informed Interior Secretary Donald Hodel that Arizona would agree to the dropping of the mandatory exchange.
Donald Antone reiterated the tribe’s need for “a stable supply of water sufficient to sustain the expansion of the reservation’s economy,” a concept that gained added value when the tribe released its 1985 Master Plan Report for Land and Water Use. The plan outlined a goal of irrigating 146,330 acres of land, requiring an annual water budget of 771,581 acre feet of water.739

After years of fruitless talks, the tribe and the Salt River Project—the largest utility and water supplier in the Salt River Valley—agreed to begin discussing a “comprehensive water rights settlement proposal.” In October 1990, the tribe appointed a water negotiating team to press forward toward a negotiated settlement with all parties that might be included in a comprehensive settlement. By 1991, a framework that included a proposed annual water budget of 653,500 acre-feet of water and funding to rehabilitate or construct the water delivery system was in place.740 In June of that same year, the Bureau of Reclamation informed Pima Tribal Governor Thomas White that the mandatory effluent exchange provision would be dropped, clearly an effort to entice the tribe to sign a water delivery contract and mitigate one component of the Damoclean threat.741 On October 22, 1992, the Gila River Indian Community signed its delivery contract for 173,100 acre-feet of CAP water.742

739 Gila River Indian Community Master Plan Report for Land and Water Use, 1985, pp. 5-9, 5-15 and 5-52 to 5-57. The acreage was a lofty goal and was primarily intended to serve a political function of encouraging water settlement.


741 White had argued in March 1992 that no other “CAP contract had been held hostage to settlement of its rights.” The Central Arizona Water Conservation District Board had opposed the provision as it feared Pima contracted water would not be credited to its Winters rights. Dropping the mandatory effluent exchange would enable the Pima to effect any potential water exchange on more agreeable terms.

742 Central Arizona Project Water Delivery Contract Between the United States and the Gila River Indian Community October 22, 1992 (in author’s files). Contracted water may only be used on lands deemed arable by the Secretary. Furthermore, the tribe was required to accept CAP water in exchange for Gila River water that would be used in the upper Gila River system.
A water delivery contract was not a full and complete water settlement, as tribal claims against upstream users, mining corporations, neighboring irrigation districts and cities remained. Consequently, the Interior Department sought to discharge its trust responsibility and encourage a final settlement to all tribal water claims and supported the Pima in the Gila River General Stream Adjudication, which the State of Arizona initiated in 1976 with the goal of clarifying and quantifying all water rights within the state. In 1979, the adjudication hearings were transferred to the Maricopa County Superior Court and, by 1981, were consolidated and styled In re the General Adjudication of All Rights to Use Water in the Gila River System and Source, being classified W-1 (Salt River), W-2 (Verde River), W-3 (Upper Gila River) and W-4 (San Pedro River) consolidated.

As settlement talks progressed, the question remained from whence settlement water (above the CAP delivery contract) would come? While many elderly Pima longed for Gila River water, such water was not politically practical or feasible. Consequently, short of buying out existing water users—an unpopular proposition as evidenced by the 1976 Kennedy bill—the only source of settlement water was the reallocation of 240,000 acre-feet of uncontracted CAP non-Indian agricultural water, a proposition agreed to in principle by the Central Arizona Water Conservation District (CAWCD) board of directors in 1995. The Pima also remained concerned with how the water would be delivered to the reservation so it could be put to beneficial use.

On October 13, 1995, the water delivery question was answered when the Gila River Indian Community and the Bureau of Reclamation agreed to an annual funding

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743 The CAWCD Board recognized the Pima had legitimate claims to the waters of the Gila, Salt and Verde rivers and feared a court might order it to use CAP water to satisfy Indian claims or that the secretary of the interior might do it unilaterally. See Grady Gammage, Jr., “Steiger’s rantings on water need a dose of reality,” Tribune Newspapers, March 8, 1998.
agreement for the tribe to build the federal portion of the on-reservation CAP irrigation delivery system under Indian Self-Governance. Reclamation committed $386 million—to be indexed for cost increases—to construct the on-reservation portion of the CAP delivery system. This led to the creation of the Pima-Maricopa Irrigation Project as a tribal program using federal funds to construct the backbone delivery system and laterals to irrigate tribal land scheduled to receive CAP contracted water. Within a year, the Pima-Maricopa Irrigation Project Draft Programmatic Environmental Impact Statement was published, outlining four alternatives for constructing a water delivery system across the reservation. 744

In the meantime, Senator Jon Kyl (R-AZ) offered to assist the CAWCD in bringing about a legislative solution to the Gila River water settlement beginning in the spring of 1998. A framework for settlement was discussed, although Interior Secretary Bruce Babbitt expressed concern that if an agreement could not be worked out before the end of the Clinton administration “it could be a very, very long time” before one might be concluded. Rita Pearson, Director of the ADWR, feared litigation could “take decades in the courts” and present risks to both tribal and state interests. Since a court could rule the Pima had priority rights to the waters of local watersheds (Salt, Gila and Verde), metropolitan cities and the Salt River Project favored reallocating CAP water to settle the Indians’ claims. Important allies were added to the list of settlement supporters. 745 On

745 Rita Pearson, Gila River Indian Community, Issues Concerning Claimed Water Rights, October 1, 1998. Cities in the Phoenix metropolitan area understood that if they joined in the negotiation process they could help frame a settlement that would be less injurious to their interests. George Britton, deputy city manager of the City of Phoenix, argued in 2004 that “virtually no congressional member is going to support a settlement that is going to do damage to the existing domestic water supply.” Anything else would result
July 30, 1999, Babbitt published in the Federal Register a notice modifying previous CAP allocations to “assist in the resolution of outstanding Indian water rights claims.”

Settlement of Gila River Indian Community claims, however, was now being tethered to the repayment by the CAWCD of the construction costs of the CAP system, an issue that was the subject of its own lawsuit between the CAWCD Board and the federal government. In November, the Arizona Supreme Court affirmed a Maricopa County Superior Court ruling acknowledging reserved rights applied to groundwater but that “a reserved right to groundwater may only be found where other waters are inadequate to accomplish the purpose of a reservation.”

Kyl, meanwhile, moved toward the front of water negotiations and, in July, introduced an amendment to a Defense Department appropriation bill that prevented Babbitt from reallocating any CAP water. Congress approved of the bill on July 20, placing Kyl as the central figure in bringing about a final negotiated and legislatively approved water settlement. The Senator then introduced S. 3231, the Arizona Water

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746 *Federal Register*, 64:146, July 30, 1999, p. 41457. The reallocation to the Gila River Indian Community would be as follows: 102,000 acre-feet from the federal government; 17,800 acre-feet relinquished by the Harquahala Valley Irrigation District; 18,600 acre-feet from the Roosevelt Water Conservation District; and 17,000 acre-feet from ASARCO. All of these allocations would be reallocated to the Gila River Indian Community as part of a comprehensive settlement of all claims.


748 *An Act Making Supplemental Appropriations for the fiscal years ending September 30, 2001*. 115 Stat. 155. Kyl politically tied the secretary’s hands because Babbitt refused to assure the Senator that he would not reallocate water absent a water settlement for Gila River.
Settlements Act of 2000. Although the bill died at the end of the legislative session, it raised the hope that a final settlement was imminent.\footnote{A Bill to provide for adjustments to the Central Arizona Project in Arizona and for other purposes, S. 3231, 106th Congress, 2d session, October 24, 2000.}

Concurrently, litigation continued and in March 2002 the Arizona Superior Court ruled in In re the General Adjudication of All Rights to Use Water in the Gila River System and Source (W-1-203) that the 1935 Gila Decree covered upstream agricultural wells but that the Gila River Indian Community could not claim more water out of the Gila River than what was granted it by the Gila Decree of 1935. In addition, the court opined that the tribe could not claim any additional water from the Salt River other than what had already been allocated by the Haggard Decree.\footnote{In re the General Adjudication of All Rights to Use Water in the Gila River System and Source (W-1-203), March 7, 2003. See note 97 supra for the court’s reliance on the special master in this ruling. In March of 2005, the U.S. District Court in Tucson accepted the argument of the Gila River Indian Community that the subsurface flow and surface flow of a river are connected. For the first time the subflow of the Gila River was covered by the Gila Decree. See US v. Gila Valley Irrigation District, No. CV31-0059-TUC-SRB, March 29, 2005.}

On February 4, 2003, the Gila River Indian Community agreed to a water settlement proposal. Three weeks later Senators Jon Kyl and John McCain (R-AZ) introduced S. 437 (the Arizona Water Settlements Act of 2003) in the Senate with Representatives J. D. Hayworth (R-AZ), Jim Kolbe (R-AZ), Trent Franks (R-AZ), Raul Grijalva (D-AZ) and Ed Pastor (D-AZ) introducing H.R. 885 in the House.\footnote{“Gila River Tribe approves water settlement with U.S.,” Arizona Republic, February 6, 2003. The settlement agreement is more than 2,600 pages in length and includes thirty-five parties, including the Gila River Indian Community, the United States, the state of Arizona, thirteen irrigation districts, sixteen cities, two corporations, and one water company. The bills were introduced in both Houses on February 25, 2003.} The Senate approved of the bill on October 10, 2004, with the House following suit on November 17. On December 10, 2004—with a simple stroke of the pen and without political fanfare—President George W. Bush signed into law the Arizona Water Settlements Act of 2004, which, in addition to the Gila River Indian Community Water Settlement Act (Title II), also included adjustments to the
CAWCD repayment contract for constructing the CAP (Title I), amendments to the Southern Arizona (Tohono O’odham) Water Settlement Act of 1984 (Title III), and provisions for an adjustment to the San Carlos Apache water settlement (Title IV).

The Arizona Water Settlements Act brought an historic conclusion to one of the most egregious and long-standing Indian water disputes. This negotiated agreement approved by Congress provides water that the courts had refused to confirm. It also provides funds to rehabilitate the San Carlos Irrigation Project and buy down the expense of costly CAP water for tribal farmers, something the courts could never have provided. In so doing, the Damoclean sword that hung over the state for a century was sheathed. The largest water settlement act in North American history, the Gila River Indian Community water settlement act restores a total annual tribal water budget of 653,500 acre-feet.

Few people have insight into how the Pima agricultural economy was decimated a century ago. As a result, there is a limited understanding of how important the Gila River water settlement act is to the cultural integrity and economic well-being of the Pima. This act enables the Pima to not only practice agriculture once again but also restore their ability to expand agricultural production as they would have had their rights to water not

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753 Sources of water include the following: 156,700 acre-feet of groundwater (existing); 125,000 acre-feet of Gila Decree water (existing); 5,900 acre-feet of Haggard Decree water (existing); 173,100 acre-feet of CAP Indian priority water (existing); 18,600 acre-feet of Roosevelt Water Conservation District (RWCD) CAP water (new); 4,500 acre-feet of RWCD surface water (new); 18,100 acre-feet of Harquahala Valley Irrigation District CAP water (new); 17,000 acre-feet of ASARCO CAP water (new); 20,000 acre-feet of Salt River Project stored water (new); 4,500 acre-feet of Chandler reclaimed water (new); 2,230 acre-feet of Chandler premium exchange water (new); 5,870 acre-feet of Mesa reclaimed water (new); and 102,000 acre-feet of CAP non-Indian agricultural water (new), for a total of 653,500 acre-feet of water. The Gila River Indian Community then exchanged 8,960 acre-feet of its CAP water for 11,200 acre-feet of Chandler reclaimed water and 4,500 acre-feet of Chandler “contributed reclaimed water.” In addition, the tribe exchanged 23,540 acre-feet of its CAP water with the City of Mesa for 29,400 acre-feet of Mesa reclaimed water.
been disturbed a century ago. Today, the Gila River Indian Community finds itself on the precipice of a dynamic new agricultural economy.
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