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Forced to Abandon Their Farms: Water Deprivation and Starvation among the Gila River Pima, 1892–1904

DAVID H. DEJONG

[T]he Indians . . . continued to increase their cultivated lands and were prosperous and contented. White people began to take water from the river about forty years ago. The first diversion being so small we hardly noticed it, but they gradually took more out each year till we noticed our loss by not being able to irrigate all our fields. We were forced to abandon them little by little, until some twenty years ago when we were left high and dry.

—Chir-purtke, sixty-seven-year-old Pima elder, June 1914¹

INTRODUCTION

On 17 June 1902, after more than a decade of political debate and maneuvering, the National Reclamation Act became law.² This legislation provided direct federal subsidies for the development of irrigation projects across the arid West. Initially, reclamation projects focused on public, rather than private, lands; and since there were large tracts of public lands in the Gila River and Casa Grande valleys, many people—including government officials—believed the first federal reclamation project in Arizona would be built there.³ Political leaders and farmers from these valleys, banking on a large area of public lands waiting to be developed, were well aware of the chief factor they believed would carry them in their desire for the first federally financed reclamation project: the well-known but unfulfilled government promises to alleviate the water problems of the Pima tribe.⁴

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The Reclamation Act generated challenges across much of Indian Country in the West as non-Indians began appropriating the remaining flow of many western streams, including the Gila River. Prominent disputes—predating the law—arose on the Yakima (Washington), Ft. Belknap (Montana), Pyramid Lake (Nevada), Ft. Hall (Idaho), and Wind River (Wyoming) reservations. Indian tribes across the West, already facing serious water challenges, now faced increased competition as public lands once considered marginal were settled and irrigated, with the remaining water rapidly being appropriated by non-Indian water users.

The Indian Service was completely unprepared for what transpired. Prior to 1900 it did not employ a single professional irrigation engineer and did little to assist tribes in putting their water to use. At the time of the Reclamation Act this was well known among government officials. Fredrick Newell, director of the newly created Reclamation Service, prophetically wrote in 1903 that Indian water rights were in “great danger” of being permanently lost because the water was being put to beneficial use by others, namely non-Indian farmers who were encouraged to settle and develop the public domain by the US government.⁵ More pointedly, the Indian Service—charged by Congress to assist tribes in making the transition from their traditional ways of life to one more closely aligned with their non-Indian neighbors—did little to help tribes develop the infrastructure needed to irrigate their land and did even less to protect their rights to the water.

There are several reasons why the Indian Service ignored the rights of its Indian charges. First, westerners were opposed to federal involvement in Indian resource development because they perceived such potential projects as giving Indians leverage over them since they were categorically excluded in such legislation. Furthermore, few westerners believed the government should do much more than open up Indian lands for non-Indian settlement, viewing reservations as both temporary and as preventing the full utilization of the nation’s natural resources. For Indian water to be put to beneficial use (and protected under state prior appropriation laws that the Indian Service assumed applied to Indian Country), it would have to be stored and diverted. This would require large federal appropriations and would give an advantage to Indians that was not then available to non-Indians. Non-Indians, nonetheless, continued to lobby for such federal support in the form of the Reclamation Act. Having the power of the ballot—while their Indian neighbors did not—westerners spoke with their vote and marginalized Indian projects in order to support non-Indian water development.

Second, and equally important, neither Congress nor the courts ever sanctioned a principle of Indian water rights outside of state prior appropriation laws. Congress, for instance, always deferred water rights matters to state law. After all, Indian subjection to state jurisdiction was the long-desired goal of Congress. Thus, while there was a different set of laws governing Indian Country, it was assumed Indian water issues fell within the purview of state water law. Not until 1908 and the US Supreme Court’s *Winters v. United States* decision did tribes have any legal basis for protecting their water outside of state law. But even then the Indian Service failed to capitalize on the ruling to

the benefit of the Indians, continuing to seek protection of Indian water under prior appropriation laws.⁶

Consequently, in the decades preceding the *Winters* ruling, the Indian Service, its purse and policies controlled by Congress, did little to assist tribes in ensuring their water was put to good use and did even less in protecting Indian water from non-Indian appropriators. Congress was unprepared on both philosophical and political grounds to commit the government to large appropriations to ensure both the utilization and protection of Indian water rights. Even if it had been willing, it would have been a politically challenging endeavor given that most Americans believed strongly in states' rights and limited federal involvement. In the meantime tribes such as the Pima suffered from deprivation because of lack of water.

THE CRISIS BEGINS

The Gila River Pima (Akimel O'otham or "River People") began experiencing an insufficient flow of surface water in the 1870s. In 1878 the Gila was dry from May until December, with many Pima and Maricopa families lacking even domestic water. A year later, in an attempt to provide additional land and protect Pima and Maricopa villages in the Gila Crossing and Komatke area, President Rutherford B. Hayes extended the reservation northwest to the confluence of the Salt and Gila rivers, adding some thirty-two thousand acres. Water for crops, however, remained in short supply. As a result, half of the Indians (about twenty-five hundred) moved off the reservation into the Salt River Valley 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 US government had to purchase wheat for "desitute Indians."⁷

In the 1880s the lack of water grew more acute, even though each Pima family yet retained "a wheat field and every village a ditch."⁸ By 1886 Pima Agent R. G. Wheeler informed Commissioner of Indian Affairs John Atkins that the Pima and their Maricopa neighbors had "ample lands" but lacked "water for irrigation." Having sufficient water, the Pima had been prosperous farmers disinterested in "charitable or any other assistance." They thoroughly understood how to use water, Indian Inspector P. McCormick informed Interior Secretary Cornelius Bliss in April of 1897, "and [they] know how to handle it."⁹ Without water, Pima elder William Wallace murmured, their "pride as independent and self-supporting people" would be destroyed.¹⁰

That the Pima knew how to farm was never in doubt. Pima agent Elmer Howard, writing to Atkins in 1887, explained that "[t]he Pima Indians are eminently an agricultural people, having tilled the soil for centuries. They are well skilled in hydraulic farming."¹¹ Indian Inspector Robert Gardner was more succinct. Writing to Secretary of the Interior Henry Teller, Gardner noted, "They do not need a farmer" to teach them how to farm. Inspector Franklin Armstrong reiterated this observation the following year: "I find also a farmer here at \$800 per year—Mr. Cox. This man will be of but little use here, as the Indians are better farmers for this country than he is."¹²

The Pima confronted a variety of challenges in the late nineteenth century. They dealt with dishonest agents, scandalous traders, and political feuds between federal employees and missionaries. Foremost among these challenges were trespassers “who refuse the Indians the use of water.”¹³ Agent Claude Johnson, writing in 1888, opined that “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.”¹⁴ Two years later, Johnson, having been denied a request for fifty thousand dollars to construct a reservoir, dam, and canal system on the reservation, asked Atkins to send an engineer to the reservation to evaluate the prospects for a large irrigation system on the Gila River.

By the turn of the twentieth century, agent John B. Alexander could only echo the concerns so often made in the preceding fifteen years. “The reservation contains good irrigable lands,” Alexander noted, “but lacks the chief essential—water.”¹⁵ One of the reasons for the lack of water was the construction of the Florence Canal (later known as the Florence–Casa Grande Canal) in 1886, which diverted nearly all the remaining surface flow of the Gila River above the reservation. Upper valley users in the Safford and Solomonville communities also placed increasingly high demands on the waters of the river, as shown in Table 1.¹⁶

Table 1
Percentage Use of Gila River Natural and Flood Water Flow,
Select Years 1866–1918

Year	Pima Reservation ^a	Florence–Casa Grande	Safford-Solomonville
1866	100	0	0
1878	73.60	11.23	13.57
1892	48.27	9.79	35.38
1901	42.69	10.90	36.56
1910	37.99	10.50	41.30
1914	36.38	13.00	40.71
1918	29.50	28.64	33.62

Source. “Gila River Priority Analysis, Water Distribution Chart #3,” United States Indian Service, Irrigation, 20 Jan. 1926.

Note. Percentages do not total 100 because smaller users have been omitted.

^aPercentage 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.

Gardner informed Teller in 1886 that the Florence Canal “should not be built [to] benefit a few speculators to the loss and detriment of four or five thousand Indians.”¹⁷ Consequently, Teller asked the US Geological Survey (USGS) to evaluate the situation. The USGS concluded that “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 USGS admitted that “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." Inspector Franklin Armstrong reminded the Indian Service that "the question of water will at some future day be a serious one here for irrigation."¹⁸

The Geological Survey clearly recognized that 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 Pima. Both the USGS and the US attorney agreed to this but did nothing to quantify the area farmed or the flow of water used, something that would not be accomplished until 1913–14, when the Indian Service belatedly recognized that Indian water rights might be lost if non-Indian reclamation projects continued to usurp all the water. Without such data it would be 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.¹⁹

In the spring of 1886 Interior Secretary Lucius Q. C. Lamar had asked the US attorney general to "take such steps under the Federal or Territorial laws as might be necessary to protect the Indians in their rights." The US district attorney for Arizona Territory recommended that litigation not be brought against the Florence Canal Company until data on acreage and water flow could be quantified. Bureaucratic ineptness delayed the question of gathering data until 1904, and it was another decade before they were actually gathered. But rather than seeking to litigate Pima water rights, agency superintendent John Alexander recommended that the cost of litigation (twenty to thirty thousand dollars) was too steep to warrant the expense. Commissioner of Indian Affairs William Jones concurred and notified the attorney general that the Indian Service would pursue no further legal action—despite the fact that the Florence Canal Company had prepared to litigate in 1886 fearing loss of access to the river.²⁰

No action was taken as a matter of policy because the reservation remained in communal ownership, not being allotted in severalty until the 1910s. 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.²¹ Without an adequate and assured supply of water to irrigate the land and make it productive (to ensure the self-sufficiency of the people), the reservation could not be allotted. Furthermore, the Indian Service operated under the assumption that Indian reservations—particularly nontreaty reservations such as the Pima Reservation—would be dissolved within a few years and its lands divided in severalty with surplus lands opened to non-Indian settlement. At such a day 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, of course, more farmers in the upper valleys—encouraged to acquire public domain lands and make them productive with the waters of the Gila River—diverted more water, increasing their take of the river from 13.57 percent to 41.3 percent of the flow, between 1878 and 1910.

Upper valley increases had an immediate and adverse impact on non-Indian farmers in the Florence area, as well, where percentage of water share declined from 11.23 percent to 10.5 percent during the same period. While nearly twenty-three thousand acres had been sold near Florence and awaited water patents, just seven thousand acres were farmed owing to the growing “scarcity of water.” The Pima, once prosperous farmers, were quickly becoming destitute and were on the brink of social and economic displacement, seeing their share of river water decline 62 percent between 1866 and 1910.²² Scores of Pima farms were abandoned. Others were “only partially cultivated, yielding scant and uncertain returns.”²³ Pima farmer George Pablo bemoaned how some of the Pima “had to leave our farms [in Mount Top Village] and move up the river,” where seepage water was available.²⁴ Whole villages—including Mount Top Village—disappeared.

INTERVENTION?

To the north of the reservation, non-Indians 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.²⁵ In 1901 the Maricopa County Board of Water Storage Commissioners was established to identify ways of floating county bonds to build a storage reservoir on the Salt River. However, non-Indians of the Gila River and Casa Grande valleys, still convinced that the federal obligation to restore water to the Pima Reservation would ensure federal support for their storage reservoir, did little. So pervasive was the belief that Pima water needs would force the federal government to restore water through a reclamation project that even many members of Congress believed the first federal reclamation project would be on the Gila River for the benefit of the Pima.²⁶

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 western United States. While various reclamation bills were introduced in Congress, none provided direct federal support to construct storage reservoirs. One bill 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.²⁷ Arizona territorial governor Nathan Murphy had been a catalyst in grants of land to the states, opposing direct federal involvement. Murphy favored such cessions, as they would ostensibly encourage local control and foster conservation of water resources.²⁸

While Congress was making grants to the states, it authorized water resource investigations of western lands. Under an 1888 law the hydrologic branch of 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 drainages. Within a year Newell was looking at a variety of reservoir sites along the Gila River. By 1893 he hooked up with Charles Walcott, director of the USGS, and Arthur Davis, a hydrologic engineer, and began formulating a national irrigation policy. The policy did not, however, include Indian

Country. While the Indian Service encouraged agriculture in Indian Country and within the Pima Reservation—and, in fact, provided agricultural equipment and seed to Indian farmers—it did little to secure or protect the water necessary for agriculture to succeed, believing any efforts to do so would hinder the full development of the water resources of the West.²⁹

In 1895 Congress appropriated thirty-five hundred dollars 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 the 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 provide water to the Pima was to build a masonry dam at a site on the Gila River capable of storing at least 200,000 acre-feet of water. This dam could be on Queen Creek, a tributary of the Gila with 27,000 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 20,000 acre-feet of water for the Pima and “leave a large surplus to be sold to settlers on Government lands under the canal system.” Twenty thousand acre-feet of water was clearly insufficient for the needs of the Pima. Outside of a dam, Davis recommended the use of groundwater or the purchase of surface water from the Salt River Valley and the construction of a canal to the reservation.³⁰

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.” The cost of diverting water far enough up in the Salt River Valley to transport it across the desert into the Gila River Valley and deliver it to the reservation would be too great. From an engineering perspective he saw it as impractical to deliver water to the east end of the reservation, where the land was “most desirable and where most of the cultivation has been carried on in the past.” Because of these restrictions, Davis argued, water would have to be delivered to the central part of the reservation, where fewer people lived.³¹

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 Valley water to the Casa Grande Valley.³² As part of its right-of-way agreement the company agreed to deliver water to Pima farmers whose lands abutted the canal.³³ Despite grand plans, and as Davis had predicted a year earlier, 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.³⁴

In the years prior to the National Reclamation Act a number of territorial and federal government officials sought and expected federal support for a dam on the Gila River. Intended to benefit the Pima, such a project would also encourage the development of off-reservation lands.³⁵ Arizona 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, the governor reasoned, 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 predicted a bright future with a federal reclamation

project. He foresaw more than four million families making their homes in Arizona—but an irrigation project was a prerequisite for this growth.³⁶

YEARS OF FAMINE

By the beginning of the twentieth century the annual requests of the agency superintendents and inspectors for the federal government to resolve the growing Pima water crisis multiplied. Inspector William Junkin encouraged the Indian Service to protect “the Indians in the use of the water from the stream in this vicinity before the encroachments of the white men have deprived [them] of their prior rights.” Special agent Franklin Armstrong reminded Secretary Ethan Allen Hitchcock that the Pima “must have water for irrigation or starve or get Government rations.”³⁷ But, while Congress appropriated twenty thousand dollars for the USGS to evaluate and study two proposed dam sites in 1898, it refused to commit to any project.³⁸ Not surprisingly, agent J. Roe Young expressed his frustration by complaining “until the time comes when the Government is ready and willing to come to the assistance of [the Pima], I consider any further discussion of the subject unnecessary.”³⁹ 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 appropriating one million dollars to study the San Carlos site in 1900, it failed to enact it, instead appropriating another thirty thousand dollars for the “support of the Indians at the Pima Agency.”⁴⁰

The thirty-thousand-dollar appropriation was critical because of events both upstream of and far removed from the reservation. The entire Gila River watershed had undergone, and continued to undergo, great ecological change in the nineteenth century. Beginning with the near extinction of the beaver from the Gila watershed, erosion, gulying, and silting had significantly increased with the loss of forest canopies in some areas of the watershed. Other factors that impacted the flow of water and disrupted its natural recharge included destructive forest fires and the destruction of native grasses through overgrazing.⁴¹

But there were other changes adding to the stress of the Indians. As upstream diversions from the Gila River increased, some surface water continued to flow, at least periodically, on the reservation. From this surface flow the Pima grew enough food to subsist. Part of the challenge in the 1880s was crop selection. Hay—or alfalfa—was becoming the primary cash crop in central Arizona and barley the main cereal crop. Wheat was declining in value in Pinal and Maricopa counties, which surrounded the reservation. The Pima seemed unaware of these changes, and, when water allowed, they continued to cultivate wheat. Consequently, the Pima were increasingly finding themselves on the periphery of the territory’s growing economy. Water deprivation further marginalized their economic base.⁴²

The Pima Reservation was no longer a “breadbasket” of Arizona as it had been prior to 1870. In most years Indian farmers were still able to grow two crops, although after 1890 it became more common to have a single winter

crop.⁴³ Even when the surface flow of the river failed, Pima farmers in some locales could depend on the subsurface or seepage flow. Pima agriculture in the latter years of the nineteenth century was largely sustained from this flow of water. By the time the Florence Canal opened in 1889, the Pima still used surface water from the Gila River but were growing increasingly dependent on the underflow that was forced to the surface in various locations along the river. The largest of these underground *shon*, or springs, was located near Blackwater on the east end of the reservation. Seepage water could also be found at Sweetwater near the center of the reservation and Komatke on the west end. Seepage water, however, was “not very good” and resulted in reduced yields.⁴⁴

By 1890 most of the surface flow of the river was appropriated by upstream non-Indian farmers. While the groundwater flow continued, heavy upstream diversions and environmental changes in the Gila watershed were poised to challenge the very existence of the Pima. Agent Cornelius W. Crouse informed Indian commissioner Thomas J. Morgan that without a storage reservoir the Pima would “soon cease to be styled ‘self-supporting.’” Seepage was poor-quality water, and floodwater was too intermittent. The Pima grew only two-thirds of their normal crop in 1890 because of a shortage of irrigation water.⁴⁵

The 1890s and early 1900s were especially difficult times for the Pima, prompting seventy-year-old Pima elder Joseph Head to state, “White people have no idea how the Pima Indians have suffered by the diversions of their water.” Not only had it caused the Indians “to abandon our old farms and homes which we loved so dearly, in order to seek for seepage water,” but it also caused them to “live in the mesquite forest to get their bread by selling wood.”⁴⁶

In the 1890s drought was the norm rather than the exception. While drought was not a new phenomenon, the fact that it was prefaced with ever-increasing upstream diversions made conditions within the reservation even harsher. Upstream diversions increased from zero to nearly 60 percent of the Gila’s flow between 1866 and 1901. The remaining flow, while constituting 40 percent of 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.⁴⁷ 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 famine. A Pima calendar stick for 1898–99 simply noted: “There was no crop this year.” In 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.”⁴⁸ An elderly couple was found dead in their home without food of any kind in their storehouse. As proud, industrious people, the Pima “preferred to starve rather than beg.”⁴⁹

Drought conditions began in the spring of 1891 after a 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 “desitute Indians.”⁵⁰ By the fall of 1891, drought caused

Arizona ranchers to ship hundreds of thousands of cattle and horses out of the territory. Within a year the drought in southern Arizona was severe.⁵¹ Nonetheless, more than twenty thousand steers were driven into the Salt River Valley to forage on irrigated alfalfa, suggesting there was still plenty of water in that valley.⁵² Conditions on the Pima Reservation deteriorated to the point that the first large-scale wholesale cutting of one of the reservation's few remaining natural resources—mesquite trees—began in earnest.

Every year from 1892 until 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 (five thousand bushels) of wheat for subsistence and seed. About five thousand acres of land were fenced and prepared for cultivation in 1895, but because of the "scarcity of water" the Pima could not sow their grain.⁵³ Estimates indicate 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.⁵⁴

By the mid-1890s, conditions grew so critical on the reservation that Young again requested permission to purchase an additional 225,000 pounds of wheat "to prevent starvation" among the Pima. Young predicted the government would have to buy food annually for the Pima because of non-Indian farm development above the reservation and its use of nearly all of the surface water.⁵⁵ In 1894 alone more than twenty-one hundred new acres were improved above the reservation, bringing the total acreage of improved land above the reservation to 26,343.⁵⁶

In 1895 the Gila River stopped flowing on the reservation on April 10, a full month earlier than it had in 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," Young noted, "had the water supply not given out." A year earlier Young reported that he "was forced to call for aid to prevent starvation. Again this year they must have subsistence or suffer the pangs of hunger."⁵⁷

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 penitentiary, Wee Paps explained:

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."⁵⁸

The water gave out even earlier in 1896, compelling Young to arrange work for more than two hundred Pima men on the Southern Pacific Railroad.⁵⁹ Conditions were worsening across the south central Arizona deserts. Territorial governor Benjamin J. Franklin noted in May of 1896 that “water is growing scarcer,” and “unless rain comes soon serious results will follow.” The summer rains came, and by June the governor noted that “all irrigating localities . . . have made good growth and [crops] are looking well.” By July “the reservoirs and canals [were] bank full and there will be no scarcity of water during the hot season.”⁶⁰ 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.” In 1901 territorial governor Murphy called on the federal government to address Pima water needs.⁶¹ Given a fair water supply, Inspector McCormick told Interior Secretary Michael Smith, the reservation would be “a prosperous community.”⁶²

As conditions worsened, special Indian agent S. L. Taggart noted that “small patches cultivated by the Indians in their rude way and with a very scant water supply” resulted in some thirty to forty bushels of wheat per acre. This demonstrated the value of the reservation land, assuming water could be provided. Taggart added that farms in Florence above the reservation were doing better because they had “sufficient water at just the right time.”⁶³ Many of the Pima were now collecting “dead and down wood on the reservation and sold many cords of it, earning . . . \$30,000.” They were farming fewer than four thousand acres of land by 1898, not as a result of “bad management or laziness” but “entirely from the want of water.”⁶⁴

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, “and the result is that many a poor Indian will go hungry if the Government does not open its crib doors and come to their rescue.”⁶⁵ Even though 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.⁶⁶ Some of the Pima and nomadic Papago, “driven by hunger,” crossed into Mexico on marauding expeditions. Having little water and facing starvation, the Pima were quickly being 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, and others were only partially cultivated, “yielding scant and uncertain returns.” As the “lines [of despair] have tightened about the Indians,” some of the men congregated at the agency in Sacaton, hoping to find work or news of the return of their water. The Pima not only faced the pangs of hunger, but they also appeared to be at the crossroad of their very existence.⁶⁷

As bad as conditions were, they grew worse in 1900. S. M. McCowan, superintendent of Phoenix Indian School, visited the reservation in May, noting that 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 drouth, 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," McCowan added, "have they been so destitute nor the prospects for immediate improvement more discouraging," since the Pima would have "less than one-fifth of a crop of grain and their cattle are dying in large numbers."⁶⁸

The national media even broadcast the predicament of the Pima in the summer of 1900. The *Chicago Tribune* reported the following: "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* concluded by imploring, "Cannot some of our friends, who have anon[ymously] 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."⁶⁹

The *New York Tribune* likewise described the conditions of the Pima. "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 [1899], 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."⁷⁰

Despite agent John Alexander's assertion that the reports of starvation were exaggerated, stories of Pima starvation circulated in newspapers across the country.⁷¹ Even Governor Murphy acknowledged that the agricultural growth of the Gila Valley above the reservation had "been disastrous to the [Pima]."⁷² 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, Jackson's and Spining's picture of the severity of the crisis was austere: "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."⁷³

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 to reverse. On July 21 the *Florence Tribune* reported the Pima were busy "hauling away their dead cattle and horses."⁷⁴ More than 150,000 pounds

of wheat (twenty-five hundred bushels) and five thousand pounds of beans (eighty-three bushels) were distributed that summer, and Hadley continued to distribute to “the needy and helpless.” Many 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 Commissioner William Jones.⁷⁵ Graves also reported poverty: “On account of the exhaustion of the water . . . and a drought of unusual duration, . . . many [of the Indians] are in a state of great destitution and want.”⁷⁶

While the Pima—and, to a lesser degree, the Maricopa on the west end of the reservation—suffered from drought, groundwater could still be found. “Water can be had from ten to thirty feet deep in wells on all parts of the reservation,” Hadley wrote in 1900, “and there is no reason 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 ceased to flow, the subsurface flow was still there. Nonetheless, Crouse reported in December that the underground flow had already dropped between five and eight feet in Sacaton, although near Gila Crossing water continued to flow to the surface through an underground alluvial spring.

The loss of water was compounded owing to the Pima’s traditional manner of farming. Presbyterian missionary Charles H. Cook explained in 1913 that the Pima traditionally “did not irrigate too much [at one time] 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 longer 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, also resulted in reduced yields.⁷⁷

FORCED TO CUT WOOD

With the loss of their water resources the very life of the Pima was being “taken from them,” Hadley told Jones. To survive, the Indians were now cutting large quantities of mesquite wood to sell as a cash crop.⁷⁸ More than nineteen thousand cords of mesquite were cut and sold in 1900 alone. Inspector Arthur Tinker indirectly blamed this cutting and the rising destitution on the lack of irrigation water caused by large upstream diversions. The Florence Canal Company not only continued to take most of the remaining surface water from the river, but, by so doing, also prevented the natural recharge of the underground aquifer beneath the reservation.⁷⁹

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. Pima farmers, having little land to cultivate because of the lack of water, turned to cutting mesquite. An 1896–97 Pima calendar stick, for example, noted that “the Blackwater 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.”⁸⁰ By the summer of 1900 the *Arizona Gazette* reported that 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.⁸¹

In December of 1899 Jones approved a plan to cut “dead and down wood” within the reservation, although there was clearly 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 accommodate the Pima and Maricopa who sold wood.⁸² 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.⁸³ In the dozen years of famine mesquite was cut over nearly a hundred thousand acres and sold as fuel wood in surrounding off-reservation towns, causing great ecological, environmental, and cultural degradation on the reservation. The proud, industrious Pima had been reduced to cutting firewood to provide the barest of necessities for their families.⁸⁴

There was an urgent need to deliver water to the Pima Reservation. The Pima were “becoming dependent on the Government for their support,” the Board of Indian Commissioners informed newly elected president William McKinley in 1897. The following year the board expressed grave concern over the president’s lack of attention to Pima water needs: “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.”⁸⁵ In 1901 the board made a dramatic plea for something to be done to alleviate “famine struck” Pima. “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.”⁸⁶ The Pima grew a meager 12,980 bushels of wheat in 1900, enough for just 1,067 people to subsist on. More than four thousand Indians faced some level of hunger. The board strongly urged the president “to provide [the Pima with] an adequate system of irrigation.”⁸⁷

While the board’s report circulated in Washington, DC, the Pima continued to starve. Secretary of the Interior Ethan Allen Hitchcock dispatched inspector Walter Graves to the Pima Reservation in the summer of 1900 to “ascertain the feasibility of a limited system of irrigation” at a site on the Gila River. Graves, however, was limited to “an expenditure not exceeding [thirty thousand dollars].” This was “too small an amount” with which to build an irrigation system and “too large an amount to waste” on building 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.⁸⁸

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 twenty-five thousand bushels of wheat were harvested that summer. While the summer rains began to fall in July, they were not sufficient to sustain Pima summer crops. There was “no water for their crops of corn, beans and pumpkins” and “unless the government provides ways to work them and help the old and disabled of which there are a large number, starvation awaits them.”⁸⁹ Congress appropriated forty thousand dollars 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.⁹⁰ About nine hundred Pima did “manage to eke out a living” at Gila Crossing, one of the few areas within the reservation that had water.⁹¹ Pima farmers cultivated fewer than thirty-six hundred acres in 1900.

APPEALING TO THE PRESIDENT

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 them. . . . Many of our people have not enough to eat and to wear and don’t know what to do for a living.”⁹² Some “of the older Indians who were once self-supporting are now drawing rations,” sixty-eight-year-old Pima Juan Jose told Southworth in 1914, “while some of the Pimas are living on what little they can make by selling wood.”⁹³ 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.”⁹⁴ Bostonian Louis Prang and his wife, touring the reservation in December of 1901, were personally moved to write President Roosevelt of the “helpless, hopeless condition” of the Pima, urging the chief executive to “give this subject your kindest special consideration.”⁹⁵

The following year Azul also appealed directly to Roosevelt. Noting the Pima’s historic assistance to American immigrants and his people’s long history of irrigation farming in the desert, Azul informed the president of their suffering—and 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 necessities of life.” Furthermore, Azul lamented, the Pima had experienced an agricultural loss “of over \$100,000.” In short, the Pima had been reduced to poverty.⁹⁶

In the summer of 1903 Superintendent Alexander elaborated on the hardships facing the Pima in a letter to Jones. Their “supply of water became less and less each year,” Alexander wrote. “Still, they managed to live until a

few years ago, when, as the result of continuous drought, starvation drove them to seek aid of the Government. And in this pitiable dependent condition they must remain until water again flows in the canals and ditches so long dry.”⁹⁷ Even territorial governor Alexander Brodie acknowledged the Pima were “cut off from agricultural pursuits” because of lack of water. Without water some Pima left their farms and “wandered off to swell the ranks of the nomadic element.”⁹⁸

Roosevelt assembled a committee to examine the complaints of the Pima and concluded that “the conditions of these people has been one of grinding poverty and that there has been extreme and wide-spread suffering among them.” While they had managed to retain “their self-respect and have endeavored to eke out a living,” the president acknowledged that the “deprivation of their water” was the cause of their condition. The committee acknowledged that for all intents and purposes, there had been “no crops for six years and most cattle herds had been sold for subsistence.”⁹⁹ 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.

Although the drought ended in 1905, the Pima continued to suffer deprivation. They had gone from a prosperous agricultural people to a poverty-stricken people in the span of two decades. Once proud and industrious, the Pima, against their will and wishes, were now dependent on federal assistance for their very survival. They had cut and would continue to cut tens of thousands of cords of mesquite, one of their most sacred and precious of resources. By so doing, they lost an easily harvested and stored source of food—mesquite beans, which were a staple food, especially in difficult times—albeit one that was rapidly dying owing to lack of water and environmental changes on and above the reservation. With the cutting of mesquite, the Pima environment was markedly changed. Many Pima left the reservation to find work in nearby mines, worked for local non-Indian farmers, or found employment with the railroad. Many, especially the elderly, infirm, and young, continued to suffer from deprivation.¹⁰⁰ The Pima economy, once strong and vibrant, had been marginalized. Discouraged and lacking water, the Pima could neither feed themselves nor compete on any scale with the local economy. As one Pima elder put it: “We are like the Papagos out in the desert” without water.¹⁰¹

LOSS OF ECONOMIC SELF-SUFFICIENCY

A decade later Charles Southworth interviewed the chiefs and elders of the Pima tribe in anticipation of litigating Pima claims. “Always in these talks,” Southworth observed, “a certain bitterness was disclosed [by the Pima] 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 for hundreds of happy Indian families who were now scattered and left to shift for a meager livelihood on a semi-barren desert.” In the words of fifty-one-year-old Pima farmer Oliver Sanderson, the Pima were forced “by his white brothers” to be “on the road continuously” selling wood or looking for work.¹⁰²

When Congress enacted into law the National Reclamation Act in 1902, it assumed the first federal reclamation project would be for the benefit and relief of the Pima on the Gila River Indian reservation. Yet no sooner had the bill become law than political maneuvering in the Salt River Valley and Washington, DC, persuaded the newly formed Reclamation Service to support what became known as the Salt River Project.¹⁰³ Popular writer Charles Lummis could not overlook the irony of the law: “Everyone remembers, of course, that the very forefront of National Reclamation was the San Carlos Reservoir. It was 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.”¹⁰⁴

The loss of water resulted in the Pima’s becoming completely displaced from their traditional economy and economically dependent. There was little immediate hope they could join the growing economy of central Arizona without protection of their water, a modern irrigation system to replace the one they had abandoned because of water loss, and financial assistance to compensate for the years of starvation. Without such support the Pima would remain marginalized from the local economy.

Indian water rights were not a priority with the Indian Service or Congress, which deferred to state law on all water matters. The Indian Service did not have the resources or the expertise to initiate data collection to substantiate Pima claims. Consequently, Pima water rights were ignored, with the underlying assumption that they would simply disappear as the Indians were assimilated into the local economy and polity. Assimilation was, after all, the long-standing goal of the Indian Service as directed by Congress. While the Indian Service attempted to invoke the beneficial use doctrine to protect Pima water after 1912, it was too late, as the people had suffered through the worst of the years of starvation and famine. Fully dependent on the federal government for their protection, the Pima could do little of their own accord. Non-Indian farmers not only continued to appropriate water that morally and legally belonged to the Pima, but also used it to expand their economy further, making it even more difficult for the Indians to compete. Not until 1924 would Congress authorize the San Carlos Irrigation Project and the construction of Coolidge Dam as a means of dealing with Pima water needs. Episodic famine continued on the reservation for another fifteen years.¹⁰⁵

NOTES

1. Charles Southworth, “Statements by Pima Indians Regarding Irrigation on the Gila River Indian Reservation” (hereafter cited as Southworth interviews), A 0690, in the Arizona State Museum Library, Tucson, Arizona, statement of Juan Manuel (Chir-purtke), 73.

2. National Reclamation Act, Act of 17 June 1902, 32 Stat. 388. This act created the Bureau of Reclamation. The United States Geological Survey (USGS), which at the time viewed water “as a single resource of many potential uses,” and the Army Corps of Engineers, which “placed upon private landowners the responsibility for collecting data about drainage and floods,” did not view reclamation projects in the same light. “The Corps of Engineers,” Samuel P. Hays wrote, “also held a narrow view of water use and water development, viewing rivers primarily in terms of transportation” (Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890–1920* [New York: Atheneum, 1980], 6–8). The Bureau of Reclamation was housed in the USGS, having been created out of one of its divisions. Today it serves eighteen western states.

3. Reclamation projects in the West always invoked difficult questions of who owned the water that would be stored behind the dams. Initially, water rights were retained under state law, with the dams, reservoirs, and canals owned by the federal government. Eventually, the United States purchased the water rights, and once the water users paid for the reclamation project, the rights were transferred to the users. When the National Reclamation Act was amended to include private lands, the Salt River Valley was able to secure the first federal reclamation project under the act. A 1912 congressional investigation into the reclamation activities on the Salt and Gila rivers during the first decade of the twentieth century alleged “mis and mal feaseance” on the part of the Reclamation Service in constructing the Salt River Project. The committee concluded: “Those who watched events leading up to its [Reclamation Act] passage expected the first work would be done upon the Gila River.” The Gila River site would supply water to “public lands where settlers could make homes [in the Gila River and Casa Grande valleys], and [restore] the water stolen from the [Pima] Indians.” Based on the USGS reports, the San Carlos site was “infinitely superior to the Salt River site in every respect.” The committee concluded that the Salt River Valley received the project over the Gila River Valley because “the Roosevelt site went into the hands of the big land speculators.” Congress had intended to reclaim public lands, the investigation concluded, but “when this was about to pass, [George H.] Maxwell and B. A. Fowler, representing these Arizona land speculators, at the eleventh hour secured the insertion of a provision enabling the Government officials to use Government funds to reclaim private land.” All this occurred despite the strongest argument for reclamation having come from the water deprivation and starvation among the Pima. See *Report in the Matter of the Investigation of the Salt and Gila Rivers—Reservations and Reclamation Service*, 62nd Cong., 3rd sess., 1912–13, H. Rep. (Private) E (Washington, DC: GPO, 1913), 5, 7.

4. See Jack L. August, “Carl Hayden’s Indian Card: Environmental Politics and the San Carlos Reclamation Project,” *Journal of Arizona History* 33, no. 4 (winter 1992): 397–422. The House Committee on Expenditures noted: “The Interior Department’s investigations on the subject read like a juvenile effort at administrative government. Scarcely a year passed without an investigation and report that the Indians’ water was being stolen, yet nothing was done to save these people from starvation” (*Report in the Matter of the Investigation of the Salt and Gila Rivers*, 5).

5. See *Annual Report of the Reclamation Service, 1903–1904* (Washington, DC: GPO, 1904), 268.

6. *Winters v. United States*, 207 *United States Reporter* 562 (1908).

7. John Stout, agent, to Commissioner of Indian Affairs Ezra Hayt, 15 Aug. 1878, in *Annual Report of the Commissioner of Indian Affairs, 1878* (Washington, DC: GPO,

1879), 3; Ludlam to Hayt, 5 Sep. 1880, report, in *Annual Report of the Commissioner of Indian Affairs, 1880*, 4.

8. Henry Ward, United States Indian Inspector, to H. M. Teller, Secretary of the Interior, 15 July 1884, in *Reports of Inspections of the Field Jurisdictions of the Office of Indian Affairs, 1873–1900* (hereafter cited as *Reports of Inspections*), National Archives and Records Service, Record Group 75 (hereafter cited as NARS, RG 75), microcopy 1070, roll 35.

9. P. McCormick, United States Indian Inspector, to Cornelius Bliss, Secretary of the Interior, 4 April 1897, in *Reports of Inspections*, NARS, RG 75, roll 36.

10. Southworth interviews, statement of William Wallace, 6.

11. Howard went on to note that the average Pima farm “consists of about 10 acres,” although several “returned [boarding school] students have ‘large’ farms.” See Elmer A. Howard to Commissioner J. D. C. Atkins, report, in *Annual Report of the Commissioner of Indian Affairs, 1887*, 4.

12. Robert S. Gardner, United States Indian Inspector, to H. M. Teller, Secretary of the Interior, 2 Sep. 1886, in *Reports of Inspections*, NARS, RG 75, roll 35; and Franklin Armstrong, United States Indian Inspector, to Lucius Q. C. Lamar, Secretary of the Interior, 26 Feb. 1887, in *Reports of Inspections*, NARS, RG 75, roll 35.

13. For trespassers see Gardner to Teller, 3 March 1885, in *Reports of Inspectors*, NARS, RG 75, roll 35. For dishonest agents and scandalous traders see William Junkin, United States Indian Inspector, to John Noble, Secretary of the Interior, 30 Sep. 1890, in *Reports of Inspections*, NARS, RG 75, roll 36. For a discussion of the friction between federal Indian agents and Presbyterian missionary Charles Cook see R. Pearsons, “Pima Agency Investigation of Charges against Agent Wheeler,” report, 31 Dec. 1885, in *Reports of Inspections*, NARS, RG 75, roll 35. Agent J. B. Alexander (1902–11) was actually indicted and tried in the territorial courts for defrauding the Pima and the United States. He was acquitted of all charges. See *Thirtieth Annual Report of the Board of Directors of the Indian Rights Association, 1912* (Philadelphia: Office of the Indian Rights Association), 21–23. See also *Twenty-Ninth Annual Report, 1911*, 12–18.

14. *Annual Report of the Commissioner of Indian Affairs, 1888*, 4–5.

15. *Survey of Conditions of the Indians in the United States, Part 17, Arizona* (Washington, DC: GPO, 1931), 8236. See also “Reporting School Superintendent in Charge of Pima Agency,” in *Annual Report of the Commission of Indian Affairs*, 25 July 1903, 131.

16. See, e.g., *Annual Report of the Board of Indian Commissioners, 1897* (Washington, DC: GPO, 1897), 11. The board wrote, “Until recently these Indians have been self-supporting, prosperous, and peaceable. But nearly eleven years ago, by the extension of the Florence Canal, their water for irrigation was all cut off, and since that time they have been in great need and are becoming dependent on the Government.” See also Walter Graves, United States Indian Inspector, to Ethan Allen Hitchcock, Secretary of the Interior, 8 Sep. 1900, in *Reports of Inspections*, NARS, RG 75, roll 35.

17. 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” (Gardner to Teller [see note 12], 2).

18. “Storage of Water on Gila River, Arizona,” *Water Supply and Irrigation Papers of the US Geologic Survey* (Washington, DC: GPO, 1900), 11. Franklin Armstrong, United

States Indian Inspector, to William Villas, Secretary of the Interior, 16 Aug. 1889, in *Reports of Inspections*, NARS, RG 75, roll 35.

19. Copy of minutes of the Florence Canal Company Board of Directors, 1 Nov. 1887, encl. in C. C. Duncan, United States Indian Inspector, to the Honorable Secretary of the Interior Michael H. Smith, report, 23 Nov. 1894, in *Reports of Inspections*, NARS, RG 75, roll 36. Fred Nicklason, "Report for the Gila River Pima and Maricopa Tribes," in *Indian Water Rights of the Five Central Arizona Tribes of Arizona, Hearings before the Committee on Interior and Insular Affairs, United States Senate, 94th Cong., 1st sess., 23–24 Oct. 1875* (Washington, DC: GPO, 1975), 657–59. The volume of water in the Gila River was not measured until 1889–90 and again in 1895. Both readings were taken at the Buttes, twenty-five miles east of the reservation.

20. *Annual Report of the Commissioner of Indian Affairs, 1904*, 17–18. For the response of the Florence Canal Company see "Duncan to Smith" (note 19 above). The Florence Canal Company gathered testimony "in anticipation of litigation that they were expecting." See also "Graves to Hitchcock" (note 16 above).

21. David H. DeJong, "A Scheme to Rob Them of Their Land: Water, Allotment, and the Economic Integration of the Pima Reservation, 1902–1921," *Journal of Arizona History* 44, no. 2 (summer 2003): 99–132.

22. "Graves to Hitchcock" (see note 16 above). Graves wrote that 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, 20 Jan. 1926, in the archive files of the San Carlos Irrigation Project, Coolidge, Arizona.

23. Graves to Hitchcock, 19 Jan. 1899, in *Reports of Inspections*, NARS, RG 75, roll 36.

24. Southworth interviews, statement of George Pablo, 29.

25. Karen L. Smith, "The Campaign for Water in Central Arizona, 1890–1903," *Arizona and the West* 23, no. 2 (1981): 130; see also Karen L. Smith and Shelly C. Dudley, "The Marriage of Law and Public Policy in the Southwest: Salt River Project, Phoenix, Arizona," *Western Legal History* 2, no. 2 (winter/spring 1989): 233–53.

26. *Report in the Matter of the Investigation of the Salt and Gila Rivers*, 5–7.

27. This law was known as 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 18 Aug. 1894. By 1910 more than one million acres of federal land had been granted to the states to help fund reclamation projects. More than 740,000 acres were in Idaho alone. See Hays, *Conservation and the Gospel of Efficiency*, 9. Arizona, still a territory, did not benefit from the Carey Act. Land was not to be sold in quantities of more than 160 acres to any one person.

28. Salt River Project, *The Taming of the Salt* (Phoenix, AZ: Communications and Public Affairs Department of the Salt River Project, 1979), 59.

29. Smith, "Campaign for Water," 132. Newell wanted skilled and trained irrigation engineers available to help develop such projects in Indian Country. See *Annual Report of the Board of Indian Commissioners, 1896*, 118.

30. 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), 3–4, 12, 54. In terms of returning the flow of the river back to the Pima, Davis noted that it "would seem at first glance to be the simplest solution. Further consideration, however, shows that it is impractical. The Government has taken no steps to protect the prior claims of the Indians to the water, 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. 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.

31. Arthur P. Davis, "Irrigation near Phoenix, Arizona," in *United States Geological Survey Water Supply and Irrigation Papers* (Washington, DC: GPO, 1897), 65–66.

32. The Land Act of 3 March 1891 (26 Stat. 1096–97, sec. 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 Salt River Project, *Taming of the Salt*, 59.

33. Act of 15 Feb. 1897, 29 Stat. 527. See also *Hudson Reservoir and Canal Company*, 54th Cong., 1st sess., 28 May 1896, H. Rep. 2049. 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 U.S. Congress, 54th Cong., 1st sess., *Congressional Record* 28 (6 June 1896): 6184. The House concurred in February of 1897 (*ibid.*, 29:1630).

34. The economic depression of the 1890s may well have doomed this project from the beginning. The Hudson dam site was eventually sold and later became the site of the Salt River Project's Roosevelt Dam. The proposed canal right-of-way ran east of the present-day Consolidated Canal and would have entered the Pima Reservation near where the present-day East Maricopa Floodway is located. This proposal is interesting because it indicates a congressional intent to deliver Salt River Valley water to the reservation.

35. Davis, *Irrigation Investigation*, 24. If a joint works system were acceptable, then Davis preferred a storage dam at the Buttes.

36. *Annual Report of the Governor of Arizona to the Secretary of the Interior, 1894* (Washington, DC: GPO, 1894), 19. Hughes outlined a number of methods of financing

reclamation projects, including amending the Carey Act to allow territories to avail themselves of the law's provisions, authorizing the issuance of bonds against "each irrigable quarter section of land lying below said reservoirs," and a plan simply calling for the issuing of bonds to be secured "by the sale of land."

37. Frank C. Armstrong, Special Agent, to Ethan Allen Hitchcock, Secretary of the Interior, 23 Nov. 1901, encl. in "Conditions of Reservation Indians, Letter from the Secretary of the Interior, 21 Feb. 1902," 57th Cong., 1st sess., H. Doc. 406 (Washington, DC: GPO, 1902), 56.

38. "Junkin to Noble," 2-3 (see note 13 above). See also Indian Appropriation Act of 1 July 1898, 30 Stat. 571.

39. *Annual Report of the Commissioner of Indian Affairs, 1897*, 115.

40. *Ibid.*, 1904, 11.

41. *Report of the Governor of Arizona to the Secretary of the Interior, 1902*, 27. Territorial governor Nathan O. Murphy recommended that to solve the Pima water problem, water should be obtained, the land allotted, and the Papago from the Gila Bend Reservation consolidated on the Pima Reservation. See also Gardner to Michael Smith, Secretary of the Interior, 5 June 1891," in *Reports of Inspections*, NARS, RG 75, roll 36. Gardner recommended the same thing in 1891, except he added the nomadic Papago, who were eventually settled on the Tohono O'odham and Ak Chin reservations. For the destruction of the Gila River see Henry F. Dobyns, "Who Killed the Gila," *Journal of Arizona History* 19 (1978): 17-30.

42. I am indebted to 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, 8-12, for this information. Wilson notes the Pima no longer grew cotton after 1890, with barley and wheat the principal crops.

43. There was sufficient surface flow as late as the mid-1880s. Indian agent A. H. Jackson informed Commissioner Hiram Price that the Pima "tilled more land this year than any other in the history of these people." See *Annual Report of the Commissioner of Indian Affairs, 1883*, 5.

44. These alluvial springs were found in areas where the underground aquifer narrowed because of 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*, 58th Cong., 2nd sess., H. Doc. 742 (Washington, DC: GPO, 1904). Southworth interviews, statement of Ho-Ke Wilson, 45.

45. *Annual Report of the Commissioner of Indian Affairs, 1890*, 5. See also Arthur Tinker, United States Indian Inspector, to John Noble, Secretary of the Interior, 29 May 1890," in *Reports of Inspections*, NARS, RG 75, roll 36. William Wallace noted, "Some times we do not get a crop" (Southworth interviews, statement of William Wallace, 6).

46. Southworth interviews, statement of Joseph Head, 82.

47. "Gila River Priority Analysis, Water Distribution Chart #3" (see note 22 above).

48. George J. Fanning, Agency Physician, to Elwood Hadley, United States Indian Agent, report, in *Annual Report of the Commissioner of Indian Affairs, 1900*, 197.

49. The drought was so severe that numerous instances of death and malnutrition occurred. Frank Russell, in *The Pima Indians* (Tucson: University of Arizona Press, 1975), 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), 16, reported “skeletal pathologies” among Pima skeletal remains, indicating “nutritional deficiencies” and “inadequate diets” were widespread at the time.

50. *Annual Report of the Commissioner of Indian Affairs, 1890*, 5. The reason for the decline was “the scarcity of water.” “Junkin to Noble” (see note 13 above), 3.

51. *Report of the Governor of Arizona to the Secretary of the Interior, 1896*, 22. Most of the cattle were shipped to Texas, Indian Territory, Kansas, California, Nevada, and Oregon.

52. “Report of Colin Cameron, Chairman of the Territorial Livestock Sanitary Commission,” in *Report of the Governor of Arizona to the Secretary of the Interior, 1892*, 9.

53. Cornelius Crouse, U.S. Indian Agent, Sacaton, Arizona Territory, to Commissioner of Indian Affairs Daniel Browning, 10 May 1893, in *Letters Received, Office of Indian Affairs*, NARS, RG 75; “Duncan to Smith,” 1 (see note 19 above).

54. In Tucson, for example, “rivers, reservoirs, and canals contain[ed] an abundance of water for irrigation, and the fields and ranges [were] well moistened” (*Report of the Governor of Arizona to the Secretary of the Interior, 1894*, 23).

55. *Annual Report of the Commissioner of Indian Affairs, 1895*, 121. J. R. Young to Secretary of the Interior Michael H. Smith, 4 Dec. 1894, in *Letters Received, Office of Indian Affairs*, NARS, RG 75.

56. There were 26,343 acres of land above the reservation with land patents issued by the federal government, although only 6,520 acres actually farmed from the Florence Canal. The Florence Canal Company claimed that the water drawn into its canal did “not deprive the Indians of any water that they would receive” since what little water flowed down the Gila would seep into the underground current or evaporate before it reached the reservation. See C. C. Duncan to the Honorable Secretary of the Interior Ethan Allen Hitchcock, in *Reports of Inspectors*, NARS, RG 75, M1070, roll 36, 2. Duncan submitted the idea of constructing a dam at the Buttes to store water for both the Pima and their non-Indian neighbors.

57. J. Roe Young to Commissioner of Indian Affairs Daniel Browning, report, *Annual Report of the Commissioner of Indian Affairs, 1894*, 104.

58. *Report of the Governor of Arizona to the Secretary of the Interior, 1895*, 43. 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 (23).

59. *Annual Report of the Commissioner of Indian Affairs, 1896*, 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, 196).

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

61. See *Annual Report of the Board of Indian Commissioners, 1898*, 24; and *Report of the Governor of Arizona to the Secretary of the Interior, 1901*, 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.”

62. McCormick to Michael Smith, Secretary of the Interior, 17 April 1896, in *Reports of Inspections*, NARS, RG 75, roll 36; Armstrong to Hitchcock (see note 37 above).

63. *Annual Report of the Commissioner of Indian Affairs, 1898*, 126.

64. *Ibid.*, 1900, 196; Armstrong to Hitchcock, 57 (see note 37 above).

65. *Annual Reports of the Department of the Interior for 1899, Indian Affairs*, pt. 1, 161–62.

66. 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 Carl Hayden, comp., *A History of the Pima Indians and the San Carlos Irrigation Project* (Washington, DC: GPO, 1965), 53.

67. “Graves to Hitchcock,” 2–4, 8 (see note 16 above).

68. Quoted in “Pimas and Papagos,” *Florence Tribune*, 19 May 1900, 2. McCowan continued: “This scarcity of water is due to two causes. One is the extraordinary drouth of the past two years and the other to the fact that white settlers have preempted all the water flowing above ground above their reservation, leaving none, or a very little during floods, to get so far as their planting fields.” See also “Distress among Indians,” *Phoenix Republican*, 29 June 1900, 4.

69. “Indians Starving: Six Thousands Perishing on the Gila Reservation Because of Lack of Water,” *Chicago Tribune*, repr. in the *Florence Tribune*, 14 July 1900.

70. “The First Irrigators, Gross Injustice to the Friendly Pima Indians of Arizona,” *New York Tribune*, repr. in the *Florence Tribune*, 17 March 1900 and again on 5 Aug. 1900.

71. For example, see “Indians Starving,” *Florence Tribune*, 14 July 1900, 1. Twenty “helpless adults,” the *Tribune* wrote, were living in “one miserable shack, that would, under ordinary circumstances, scarcely accommodate three persons.” The elderly and infirm, Alexander added, received rations while the rest had sufficient food. *Annual Report of the Commissioner of Indian Affairs, 1905*, 175.

72. *Report of the Governor of Arizona to the Secretary of the Interior, 1900*, 133. Governor Alexander O. Brodie, in 1904, also recognized the hardships faced by the Pima: “[T]he Pima and Papago Indians have suffered, and the Government is forced to provide rations for the destitute families” (*ibid.*, 1904, 33).

73. Sheldon Jackson and George L. Spining, *Our Red Reconcentrados—Some Facts Concerning the Pima and Papago Indians of Arizona*. Printed in *Congressional Record*, 56th Cong., 2nd sess., 26 Jan. 1901, pt. 2, 1515.

74. “The Indian Destitution,” *Florence Tribune*, 21 July 1900, 5.

75. Elwood Hadley to Commissioner William A. Jones, 21 July 1900, in *Office of Indian Affairs, Indian School Service, Office of Superintendent*, NARS, RG 75.

76. *Irrigation for the Pima Indians: Letter from the Secretary of the Interior Transmitting Copy of that Part of the Report of Indian Inspector Walter H. Graves Relating to Irrigation for the Pima Indians*, 56th Cong., 2nd sess. S. Doc. 88 (Washington, DC: GPO, 1901), 7.

77. *Report in the Matter of the Investigation of the Salt and Gila Rivers*, 6.

78. “Hadley to Jones,” 1 (see note 75 above). The cost of the wood was thirty thousand dollars “according to the statements of the traders.” See *Annual Reports of the Department of the Interior for 1900, Indian Affairs*, pt. 1, 196.

79. Arthur Tinker, Indian Inspector, to Commissioner of Indian Affairs William Jones, 29 May 1900,” in *Letters Received, Office of Indian Affairs*, NARS, RG 75.

80. C. H. Southworth, “A Pima calendar stick,” *Arizona Historical Review* 4, no. 2 (July 1931): 50. The calendar stick noted rations were issued for 1897–98 and 1898–99. Robert A. Hackenberg, “Pima and Papago Ecological Adaptations,” *Handbook of North American Indians*, vol. 10, *Southwest* (Washington, DC: Smithsonian Institution Press, 1983), 173.

81. *Arizona Gazette*, 16 April 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” (J. W. Hoover, “The Indian Country of Southern Arizona,” *Geographical Review* 19 [1929]: 49).

82. “Hadley to Jones” (see note 75); and “Hadley to Jones, 17 Aug. 1900, in *Letters Received, Office of Indian Affairs*, NARS, RG 75. The siding was originally called Sacaton Station but eventually became known as Sacate.

83. The following table outlines the decline in winter grains and corn and the increase in cords of wood cut from the reservation.

Year	Winter grain grown (bushels)	Corn (bushels)	Wood cut (cords) ^a	Wood cut (acres) ^b
1887	105,000	5,000	—	—
1888	110,000	2,700	—	—
1889	144,000	3,600	—	—
1890	114,000	3,000	—	—
1891	50,000	—	200	256
1892	110,000	5,500	300	384
1893	76,000	3,000	350	448
1894	62,000	0	1,000	1,280
1895	70,950	500	1,500	1,920
1896	51,250	0	4,000	5,120
1897	51,250	0	1,500	1,920
1898	117,819	0	1,500	1,920
1899	34,488	1,072	5,000	6,400
1900	12,980	180	19,000	24,320
1901	25,417	36	11,000	14,080
1902	16,955	18	14,896	19,066
1903	42,051	18	10,600	13,568
1904	12,000	500	5,300	6,784

Source: Creation and Expansion of the Gila River Indian Reservation, Prepared by the Gila River Indian Community Office of Water Rights by Henry F. Dobyns, with assistance from Gookin Engineering, Ltd., 1 Nov. 2000, 12–19.

^aThere is an average of 128 cu. ft. of mesquite wood per cord.

^bThere are one hundred cu. ft. of three-inch diameter or greater wood per acre.

84. Cutting mesquite wood was not a new proposition. Historically, the Pima cut wood, and the trees regenerated. Mesquite trees (Screwbean and Velvet) have long tap-roots (reaching fifty feet or more) that can access underground aquifers. When the water table is high the trees survive nicely, despite the relative lack of rainfall. Once the water table or aquifer drops too low, however, the trees struggle to survive on the scant rainfall of the desert. Concurrent with the massive cutting of the Pima mesquite bosques, the groundwater beneath the reservation began to drop as groundwater pumping and upstream diversions impacted the aquifer. As the cutting escalated and the water table dropped, many of the mesquite were no longer able to regenerate and died. The degradation continued throughout the early twentieth century so that today the result of this mass cutting of mesquite is still visible across the reservation, especially in the Blackwater area on the eastern end of the reservation and in the central portions of the reservation. Hundreds of thousands of stumps remain as evidence of the once expansive Pima mesquite bosques. When these trees failed to regenerate, they became a lost resource to future generations of the Pima. See Amadeo Rea, *At the Desert's Green Edge: An Ethnobotany of the Gila River Pima* (Tucson: University of Arizona Press, 1997), 54–55.

85. *Annual Report of the Board of Indian Commissioners, 1897*, 11; *ibid.*, 1898, 17.

86. *Ibid.*, 1901 and 1902, 15 (emphasis in the original).

87. *Ibid.*, 1904, 16. The board went on to state that “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. The calculations for food are based on 12,980 bushels of wheat times 60 pounds per bushel (778,800) divided by 365 days in a year, which equals 2,134 pounds per day. Dividing this by the minimum quantity per person per day or two pounds, just 1,067 people could expect a normal daily ration of food. That many ate less than this is likely.

88. *Irrigation for the Pima Indians*, 1, 3. Graves argued that the Gila River should be “excavated” using a shovel or dredge to the depth of eight to ten feet and then fit with a “wooden pipe or box . . . loosely jointed to permit water to enter freely” and covered with rock and backfill. The pipe would then act as a flume to carry the underground flow of water to the surface. “I am firmly convinced,” Graves told Hitchcock, “that by the development process enough water can be secured to supply all of the lands that may be required to support this entire tribe of Indians” (6). Graves was of the opinion that the Gila River Valley contained an “inexhaustible supply of water” (4).

89. Elwood Hadley to Commissioner William A. Jones, 26 July 1901, *Office of Indian Affairs, Indian School Service, Office of the Superintendent*, NARS, RG 75.

90. Elwood Hadley to Commissioner William A. Jones, 13 Sep. 1902, in *Letters Received, Office of Indian Affairs*, NARS, RG 75.

91. “Hydrology,” pt. 4 of the *Annual Report of the United States Geological Survey* (Washington, DC: GPO, 1901), 357.

92. Antonio Azul and subchiefs to Commissioner of Indian Affairs William Jones, 29 March 1902, encl. in Hadley to Jones, 13 Sep. 1902 (see note 90 above).

93. Southworth interviews, statement of Juan Jose, 67–68.

94. “Hearings on HR 11353, A Bill Making Appropriations for the Department of the Interior for the Fiscal Year ending June 30, 1903,” 57th Cong., 1st sess., 1 April 1902, S. Rep. 951 (Washington, DC: GPO, 1902), 6.

95. Louis Prang to Theodore Roosevelt, President, United States, 20 Dec. 1901, in *Interior Department Appointment Papers, Arizona Territory, 1857–1907, Pima Agency*, NARS, RG 48, M576.

96. Antonio Azul and Twelve Subchiefs to President Theodore Roosevelt, petition, 28 Feb. 1903, in *Letters Received, Office of Indian Affairs*, NARS, RG 75.

97. John B. Alexander, Superintendent, to Commissioner of Indian Affairs William Jones, 25 July 1903, in *Annual Report of the Commissioner of Indian Affairs, 1903* (Washington, DC: GPO, 1904), 131; “Report of the School Superintendent in Charge of Pima Agency,” in *Letters Received, Office of Indian Affairs*, NARS, RG 75.

98. *Report of the Governor of Arizona to the Secretary of the Interior, 1904*, 33. “Graves to Hitchcock” (see note 23 above).

99. Quoted in Hackenberg, “Pima and Papago Ecological Adaptations,” 173.

100. 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).

101. Southworth interviews, statement of George Pablo, 30.

102. 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, 3–4. Southworth noted that when he and his interpreter went out across the reservation to speak to the elders and chiefs, they invariably would be asked to come back in ten days (signaled by holding up ten fingers). On Southworth’s return, ten days later, the “Indians always talked.” They would have everything ready by spreading a blanket “in the shade of a tree.” The Pima called Southworth’s model T Ford a “Devil’s wagon” because they knew not what caused it to move. Not knowing what caused it to move, the superstitious Pima refused to ride in it. See Southworth interviews, statement of Oliver Sanderson, 85.

103. William H. Code, who was appointed Indian inspector in 1902 and chief irrigation engineer for the Indian Service in 1904, had long been associated with Dr. Alexander J. Chandler, land speculator and developer in the southeast Salt River Valley. Code and Chandler had connections to Frederick Newell of the US Geological Survey and Interior Secretary Richard Ballinger, who was a close friend of President Theodore Roosevelt. Code and Newell were alleged to have been involved in a scheme to defraud the Pima of more than half of their reservation lands. See *Report in the Matter of the Investigation of the Salt and Gila*.

104. See Charles F. Lummis, “In the Lion’s Den,” *Out West* 18 (June 1903): 754–56.

105. On 25 February 2003 Arizona Senators Jon Kyl and John McCain sponsored Senate bill 437, and Arizona Representatives Jim Kolbe, Ed Pastor, Raul Grijalva, Trent Franks, and J. D. Hayworth sponsored House bill 885, identical bills to settle the water rights of the Gila River Indian Community. As of this writing (September 2004) the bill continues to be heard in both Houses of Congress, having been marked up on several occasions. It is probable that the current Congress will enact the bill into law before the end of the legislative session. The Gila River Indian Community established the Pima-Maricopa Irrigation Project in 1995 to construct a twenty-four-hundred-mile-long irrigation system (main stem canal and distribution and lateral canals) to deliver water on the reservation. A state-of-the-art irrigation system will help restore the agricultural heritage of the Pima and Maricopa people. The irrigation project is funded through

an annual funding agreement with the Bureau of Reclamation. The Community is the first and only Indian tribe in the nation to operate an irrigation project under self-governance, which was authorized by recent amendments to the Indian Self-Determination Act. When completed, the project will irrigate up to 146,330 acres of reservation lands.