

# **Hondo Project**

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## **Hondo Project**

In the immediate years following its creation, riding a crest of lofty public expectation, the Reclamation Service eagerly began the monumental task of “reclaiming” the arid West. One of the first projects authorized was a small-scale irrigation project on the Hondo River in the vicinity of Roswell in Chaves County, New Mexico. Early investigations boasted that the fertile yet arid lands cut by the Hondo River were a prime candidate for a government water project. Yet even before construction was completed in 1907, several factors indicated that the project stood in jeopardy of failure. Several years later, having spent nearly half a million dollars, Reclamation decided to cut its losses and abandon the project.

### **Project Location**

The Hondo River forms at the confluence of the Rio Bonito and Rio Ruidoso from where it runs east, cuts up northeast, then runs through Roswell and into the Pecos River. The Hondo is one of the major tributaries of the Pecos, contributing 21,000 acre feet to a river with an annual flow of about 400,000 acre feet of water. The river runs dry much of the year but is occasionally susceptible to heavy flooding, which ravishes the surrounding area and deposits large amounts of sediment and material on the river bed and embankments. Average annual rainfall in the Roswell area is about sixteen inches. The Hondo River cut through areas of dry vegetation and porous rock material but also through land of exceptional fertility—soil rich in humus, suitable for the growing of sorghum crops, grains, alfalfa, and some apples and pears. Reclamation designed the Hondo Project to store water in the reservoir and provide water to 10,000 acres of farm land in the Roswell area.

### **Historic Setting**

The town of Roswell grew on the banks of the Hondo River in the 1860s as conflict with Native Americans continued and ranchers establishment the “Cattle Kingdom.” Between the Mexican War and the Civil War the federal government established several military forts in New Mexico, notably Fort Stanton on the Bonito branch of the Hondo River and Fort Sumner on the Pecos River near the Bosque Redondo Reservation. After the Civil War, the development of cattle trails such as the well-known Loving–Goodnight trail brought cattle culture to the region. Cattlemen established a dominant presence in the Pecos Range and Roswell ranch territory, and they established a few buildings and homes in the Roswell area. By 1870 Roswell boasted a hotel/saloon and a store and three years later a post office. In 1877 Joseph Lea, “the Father of Roswell,” moved into the area and vigorously began to develop it.<sup>1</sup> Roswell and the surrounding area grew during the last two decades of the nineteenth century. Chaves County was organized and a county courthouse erected in 1889–1890. Roswell became home of the New Mexico Military Institute in 1891, and the first railroad into Roswell was completed in 1894.

Increasing populations impacted the limited flows of the Hondo River and subsequent efforts to apportion that flow to maximize beneficial use. The river had a perennial flow, but as farmers took up land along the Hondo River the flow dropped to a trickle or dried up altogether. In the late 1870s Mexican cattlemen, Mormon settlers, and John Chisholm made the first attempts to irrigate in the Roswell area.<sup>2</sup> In 1888 settlers on the Pecos River formed the Pecos Valley Irrigation and Investment Company and began plans to irrigate on a large scale. In addition to using water from the Pecos River, the irrigation company also hoped to draw from the Hondo River. In 1889–90 they dug the Northern Canal two miles above where the Hondo

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1. Elvis E. Fleming, “Roswell, New Mexico,” in *Encyclopedia of the Great Plains*, David J. Wishart, editor (Lincoln: University of Nebraska Press, 2004); James D. Shinkle, *Fifty Years of Roswell—1867-1917* (Roswell, New Mexico: Hall-Poorbaugh Press, Inc., 1964), 2-8.

2. Shinkle, 74, 83.

empties into the Pecos River. Patrick F. Garrett, one of the original directors of the irrigation company, owned a large farm along the Hondo River. Other landowners in the Roswell area formed the New Mexico Reservoir and Irrigation Company and obtained the rights to the unappropriated flood water of the river. Its main design was to build a storage reservoir in a natural basin twelve miles upstream of Roswell, but the company could not raise the necessary capital and sold its investments to the Pecos Valley Irrigation and Investment Company.<sup>3</sup>

Beginning in 1890, the Pecos Valley Irrigation and Investment Company investigated and surveyed the possibility of building the reservoir. The irrigation company even took out a second mortgage in early 1890s to secure issuance of a bond to raise money for the dam on the Hondo and another in the lower Pecos Valley. The company and many of its investors fell on hard times during the panic of 1893, and within five years the company failed and bond holders lost their investment. When the Pecos Irrigation and Investment Company reorganized in 1898 under the leadership of F. G. Tracy, it sold most of its holdings and rights in Chaves County to an energetic investor from Colorado Springs, James J. Hagerman. Hagerman had already owned corporation stock and an interest in irrigation. After acquiring the reservoir site he continued to invest a lot of money to make the project a success, though in the end he did not have enough resources to succeed.<sup>4</sup>

Locals were always aware that agricultural success depended on irrigation from the Hondo, and a storage reservoir seemed the best possible plan to make that work. The land was much too dry to produce anything without irrigation, but with it farmers could grow alfalfa and plant orchards. Deep artesian wells also watered fields, but within a few years the wells, too, had

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3. Ibid., 93-5.

4. Ibid., 95-8.

dried up. In addition to irrigation, locals believed a reservoir would tame the violent floods that sometimes ravished the community and farms in the Roswell area. Less data is available in the early years, but heavy floods hit in 1893, 1901, 1904, 1911, 1915, 1919, 1923, 1928, 1931, and 1937. The flood in 1901 reportedly covered the business district of Roswell “with water from a few inches to 3 feet in depth for a period of 24 hours” and caused extensive property damage and a power outage. Locals constructed a protection dike after that destructive flood, but the high flows three years later wiped the structure out and again caused considerable damage to the community.<sup>5</sup>

In the first years of the twentieth century, the federal government gave hope to the landowners struggling on the Hondo River. Five years after the Pecos Irrigation and Investment Company sold its holdings to Hagerman, the Reclamation Service was established to “reclaim” lands for agricultural development. Backed by Theodore Roosevelt and Congress, the new agency lost no time launching an ambitious building program in the West, investing about \$100 million in the first ten years. Reclamation planned to recoup costs from sale of public lands in the West and from repayment from water users into a revolving fund. Presumably, water users would also pay back government for operation and maintenance expenses. The secretary of the interior approved five projects in 1903 and six more the following year. The Hondo Project was one of the projects authorized in 1904 and the first of several early projects in New Mexico Territory.<sup>6</sup>

### **Project Authorization**

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5. Report on Lower Rio Hondo Flood Control Investigation, 1939, State of New Mexico, Thomas M. McClure, 94-5, in Record Group 115 (RG 115), Records of the Bureau of Reclamation, Project Reports, 1910-55, Accession No. 8NN-115-85-019, box 438, National Archives and Records Administration–Rocky Mountain Region, Denver, Colorado; hereafter cited as RG 115.

6. William D. Rowley, *The Bureau of Reclamation: Origins and Growth to 1945*, Vol. 1 (Denver, Colorado: Bureau of Reclamation, 2006), 93, 109, 119-20, 129.

Once established, the Reclamation Service wasted no time getting started on its ambitious water program. It examined nearly 100 projects, and from those chose twenty-four, of which Hondo was a part. In October 1903, Reclamation's board of engineers recommended working out agreements with private interests and looking into a development of a reservoir on the Hondo River and the "nature and extent of the artesian wells." The board also recommended investigating and surveying the Urton Lake Project for its good alluvial soil.<sup>7</sup>

F. H. Newell, chief engineer and, later, director of the new Reclamation Service, visited the site and arranged for a comprehensive series of investigations and surveys. Led by W. M. Reed, field teams made diamond-drill borings into the red and yellow clays, soft rock, limestone, Gypsum, and cobblestone; created a topographical map of the area, and set up several gaging stations—one near the reservoir site, the other at Roswell—to determine the exact flow of the river. W. M. Reed estimated that for a few days in September 1902 the flow was 1200 to 1500 c.f.s. but confessed that "there is no available accurate data upon this." In his experience, however, he felt "certain" that enough water flowed down to fill the reservoir: "I believe that in nine years out of ten this reservoir could be filled at the beginning of the irrigation season, and can be easily re-filled again during the latter part of June or first of July, and this condition maintained during the greater part of the irrigation season."<sup>8</sup> Independent reports by J. H. Quinton and George Y. Wisner and a joint report joined by Arthur Powell Davis, later director of Reclamation, came to the same conclusion. Reclamation completed its preparatory tasks by the

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7. C. J. Blanchard, "National Reclamation of Arid Lands," *Bulletin of the American Geographical Society* 38:4 (1906): 209; U.S. Department of the Interior, U.S. Geological Survey, *Second Annual Report of the U.S. Reclamation Service, 1902-03* (Washington, D.C.: United States Government Printing Office, 1904), 380-9.

8. U.S. Department of the Interior, U.S. Geological Survey, *Third Annual Report of the U.S. Reclamation Service, 1903-04* (Washington, D.C.: United States Government Printing Office, 1905), 93-4; W. M. Reed to F. H. Newell, February 3, 1903, in RG 115, Entry 3, General Administrative and Project Records, 1902-19, Hondo Project, Box 506.

end of the year, and in November the director of the U.S. Geological Survey and the secretary of the interior gave Reclamation authority to “take such further action as might be necessary.”<sup>9</sup> Because the lands in the project area were privately owned, Reclamation worked to gain the right and title to project lands and to withdraw land from public entry. By early 1903 most claims had been settled, including J. J. Hagerman’s 800 acres on the reservoir site for \$20,000. (It is an interesting side note that Hagerman, owner of the reservoir site, had been rather eager to finalize the sale of his property. For years he had attempted to build the reservoir himself and advocated its construction, but for years he had failed. No doubt by selling his holdings he hoped to at least recoup some of his losses. His son, however, believing that a reservoir was “impracticable,” discouraged project personnel from buying his father’s land and from proceeding with the project plans.)<sup>10</sup>

The plan was to use existing ditch and canal lines to help deliver water at a cost of about \$28 per acre. Land owners organized the Rio Hondo Reservoir Water Users’ Association to manage the project, and they patterned their association after the Salt River Valley Users Association in Arizona.<sup>11</sup>

The early positive reports submitted in 1903 were tempered by more cautionary ones the following year. When A. P. Davis visited the project site, “by chance” it came to his attention that there were holes, or cavities, in the basin of the reservoir site. Alarmed, he arranged to have additional test pits and borings made to test the foundation. The board of engineers inspected the

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9. U.S. Department of the Interior, U.S. Geological Survey, *Ninth Annual Report of the U.S. Reclamation Service, 1909-10* (Washington, D.C.: United States Government Printing Office, 1911), 209.

10. F. H. Newell to W. M. Reed, February 2, 1903; W. M. Reed to F. H. Newell, February 3, 1903, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 506; W. M. Reed to F. H. Newell, January 2, 1905, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 507.

11. *Third Annual Report*, 360-7.

site and noted the same cavities, but it reported that a layer of clay in the soil would likely help to retain the water. At the same time, the board learned that the year's river flow readings showed only 27,000 acre feet, "much less than estimated at the time of our report of last October."

Reclamation confronted two rather unexpected and quite serious problems related to the water flow and foundation integrity.<sup>12</sup>

But within a month or two plans continued on pace with the project. The board made very little of the cavities in the reservoir foundation because "if leaks develop they can be cheaply stopped, as they seem to be local, and good puddling material is abundant." As for the water flow, personnel resigned themselves to the fact that the project would service only 12,000 acres and not 16,000 as originally planned.<sup>13</sup>

The real monkey wrench in the project was a protest against construction of the Hondo Project filed by the Pecos Irrigation Company. In mid-1904, the president of the irrigation company, Francis R. Tracy, claimed that water users in Eddy County had secured water rights in the vicinity of Roswell at least ten years prior. He argued that the water from the Hondo was necessary to keep one of the two reservoirs owned and operated by the irrigation company full. He requested a hearing to discuss the matter. He also predicted "the Hondo Reservoir will be a failure and will lead to useless waste of water by evaporation and seepage. Its construction will not benefit the Pecos Valley or the Santa Fe road. By this means the total area now in cultivation or which may be put into cultivation will be reduced."<sup>14</sup>

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12. A. P. Davis to F. H. Newell, February 19, 1904; G. Wisner to F. H. Newell, May 7, 1904, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 506.

13. W. H. Sanders to F. H. Newell, February 24, 1904; G. Wisner to F. H. Newell, May 7, 1904, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 506; Project History, Hondo Project, Vol. 2, 1904 to 1915, 1-2, in RG 115, Entry 10, Project Histories, Feature Histories, and Reports, 1902-1932, Box 198.

14. Francis G. Tracy to E. P. Ripley, July 8, 1904, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 505.

The protests reflected just how much water users carefully guarded their rights in the parched region cut by the Pecos River. Population in the area had doubled in only a few years because of the promise of federal water from the Carlsbad Project, but locals had risked millions of dollars on a dependable water supply and on the success of that project. The Hondo Project, they believed, threatened “the promise of our very existence in the future” and would likely “further discourage them” and “infringe their rights.” Protesters requested help from politicians outside the territory like Senator Julius C. Burrows and Honorable Washington Gardner, both from Michigan, who could make the case in the interest of the Pecos Irrigation Company.<sup>15</sup>

Just as it had with the earlier reports on the reservoir and water flow, the Reclamation Service dismissed the company’s claim to the water rights of the Hondo River. W. M. Reed, the project construction engineer, considered the protest “unfounded” but referred the matter to the board of engineers anyway. At hearings held September 6, the board concluded that there was sufficient water available to water users of the Carlsbad Project without the runoff from the Hondo River. The problem lay in the fact that the water users wasted “four or five times as much water as they beneficially supply to the land.” In addition, the Rio Hondo Reservoir Water Users’ Association wrote a lengthy reply and demonstrated that the Pecos Irrigation Company could lay no claim to the water rights because it had sold them all to Hagerman in 1898.<sup>16</sup>

After a devastating flood swept through the Roswell and Pecos Valley areas, Tracy acquiesced and rescinded the protest. “It seems to me almost pitiful that we should be engaged

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15. E. P. Ripley to F. H. Newell, July 13, 1904; Land owners to E. A. Hitchcock, July 19, 1904; George W. Sullivan to J. C. Burrows, August 24, 1904, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 505.

16. Chief Engineer to E. P. Ripley, July 16, 1904; Acting Director to the Secretary of the Interior, October 1, 1904, ; “The Hondo Facts: The Statement of the Water Users’ Association as to the Facts in the Hondo Project,” *Roswell Record*, July 25, 1904, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 505.

in a dispute about the ownership of some of those waters which have caused us both such unexpected injury,” he wrote F. H. Newell. He told the director that he did not care to press the matter further, but this was more likely because of the company’s dubious legal claim to the water of the Hondo than because of the flood. In any case, since the flood had seriously damaged several dams on the Pecos, Tracy offered to sell the Pecos Irrigation system to the government—likely one of the first offers of its kind made to the Reclamation Service. By the end of the year, Reclamation had rejected the offer and formally dismissed the protest.<sup>17</sup>

In retrospect, it is easy to point fingers at the engineers and directors for failing to act on the warning signs that had surfaced even before construction had begun. Newell demonstrated supreme confidence in the judgment of his engineers and in the optimistic water predictions of local landowners, though the Service had not undergone sufficient water tests to know with precision the annual flow of the river. The decision to proceed with the project was the first and probably most serious in a string of unfortunate setbacks that squeezed the life out of the project. Labor problems, lawsuits, and the flow of the river itself only added to the eventual problems on the Hondo.

Within two years Reclamation was ready to begin construction on the Hondo Project. It had surveyed and investigated the feasibility of the project and had done its best to establish water and property rights. Local boosters expected the project to generate quick returns, to increase property values to “\$100 an acre, when planted to alfalfa or corn, and if used for fruit raising will eventually have a higher value.”<sup>18</sup> A feeling of optimism seemed to pervade the engineers and other personnel who eagerly set out to put the newly formed Reclamation Service

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17. F. G. Tracy to F. H. Newell, October 12, 1904, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 505.

18. Report of John H. Quinton, Hondo River Project, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 506.

to work in the arid lands of New Mexico. In the first years, people believed that if it failed, it would be due to “lack of knowledge of irrigation methods on the part of the home seekers.” In the case of the Hondo Project, this did not turn out to be the case at all.<sup>19</sup>

### **Construction History**

At the position of project construction engineer was W. H. Reed, a man according to A. P. Davis “in great demand” and of “sound engineering ideas.”<sup>20</sup> His boss was F. H. Newell, chief engineer, who from the project’s inception to its eventual demise invested a remarkable amount of time and energy on the project. Newell’s intimate attention to its details, even after being promoted to director of the Reclamation Service, suggests the care and attention devoted to the first federal water programs.

The main feature of the Hondo Project was the reservoir located in a natural basin. The reservoir was to submerge a total area of 1,910 acres at an average depth of 17 feet and with a storage capacity of 40,000 acre feet. At the upstream section of the reservoir the water was to be channeled through an Inlet Canal. One of the more technically difficult construction tasks was to find a way to make sure the normally high amounts of silt continued down the river without building up in the reservoir. Engineers designed the spillways and canal such that during heavy rains the silt-laden water would not obstruct the reservoir. The water was to exit the dam from its lowest point in the reservoir at Embankment No. 5 through an outlet canal and into the river bed. From the river channel, “knock[ing] down flashboard dams” would distribute the water into lateral canals downstream. Construction of these features was divided into six schedules: one, the diversion dam and all earthworks on the canal; two, rock excavation; three, outlet canal

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19. George Wisner to F. H. Newell, October 6, 1903, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 506.

20. A. P. Davis to F. H. Newell, April 2, 1903, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 506.

excavation and embankment no. five; four, embankments one and two; five, embankment no. four; six, all masonry, concrete and structural work, iron pipes, gates, iron, steel, lumber, and piling.<sup>21</sup>

Reclamation called for bids, placing advertisements in Denver, El Paso, St. Louis, Dallas, and Santa Fe newspapers. Eleven companies bid, but because of protests Reclamation did not award the contracts until several months after receipt of bids. For one company, Wood, Bancroft & Doty, this was unfortunate as it meant laborers sat idle because company men were “afraid to undertake other work lest we should be called on to do the Roswell work.” Finally awarded, the work went to the Taylor–Moore Construction Company for work on the canals and dam for \$118,403 and Slinkard Construction Company for work on rock excavation for \$26,087.04. According to handwritten notes found in the Hondo Project files, it seems that project personnel expected to move water through the project by June 27, 1905, and to complete the project altogether by September 27.<sup>22</sup>

Unusual weather during the winter of 1904–05—“one storm after another,” 23.3 inches of snowfall in February, 29 degrees below zero—made work “almost a physical impossibility.” By spring, crews were working on the rock excavation, inlet canals, and reservoir embankments. Reclamation approved of the work done by Slinkard Construction on the rock excavation, yet it was done at a loss, “owing to the fact that the contract price was too low for handling such [rock]

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21. Project History, Hondo Project, Vol. 1, 1904 to 1915, 60, 64-5, in RG 115, Entry 10, Project Histories, Project Features and Reports, 1902-1932, Box 198; *Second Annual Report*, 380-9.

22. *Third Annual Report*, 360-7; Wood, Bancroft, and Doty to W. M. Reed, November 9, 1904, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 508; handwritten note, “contract proposal and specification for reservoir and canals, Hondo Project, New Mexico,” in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 509; U.S. Department of the Interior, U.S. Geological Survey, *Fourth Annual Report of the U.S. Reclamation Service, 1904-05* (Washington, D.C.: United States Government Printing Office, 1905), 42.

material.”<sup>23</sup> The situation facing the Taylor–Moore Construction Company was more serious. It had also bid low and began with few workers and equipment too small and inefficient to do the job. Project construction engineer W. M. Reed reported in April that “by careful account of men, teams and machinery and an estimate of the earnings, we are unable to see where the contractors are making any profit.” One problem the company faced was compacting the embankments using material delivered “in a cloddy condition.” Another more serious problem, according to the company president, was that the estimated amount of rip rap needed—27,000 square yards—was much lower than what was actually required—92,000 square yards. Add to this the unusually high cost of quarrying rock and the expense of “open Quarries at a much greater distance than present Quarries from the works, this of course will entail quite an additional expense.”<sup>24</sup>

As a result of all these factors, construction lagged behind schedule. Reed issued a warning, telling company men they needed to upgrade equipment and supply a larger work force or the contract would be cancelled. On June 1, he told the company it had fifteen days to demonstrate the capacity to complete the work. Even before that time elapsed, on June 7, the contractor defaulted and relinquished its equipment to Reclamation, as specified under the terms of the contract.<sup>25</sup>

After the dismissal of the Taylor–Moore Construction, Wood, Bancroft, and Doty (WB&D) placed a bid on the work—the only bid submitted—and received the contract for the

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23. *Ibid.*, 278-9.

24. Davis, Sanders, Hall to F. H. Newell, September 10, 1904, in Project History, Hondo Project, Vol. 2, 1904 to 1915, 17, in RG 115, Entry 10, Project Histories, Feature Histories, and Reports, 1902-1932, Box 198; Sanders, Hall, Reed to Newell, March 25, 1905; Reed to Newell, April 4, 1905, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 506; James T. Taylor to F. H. Newell, June 16, 1905, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 508.

25. *Fourth Annual Report*, 278-9.

embankments nos. 3 and 4; T. F. Cazier took over construction of the earthwork of the distributing system. For the work on the earth work of canals and laterals, it was decided to use force accounts, or day laborers, so as to “cut out ordinary bidders and result in a greatly increased [?] cost for the work.”<sup>26</sup> WB&D successfully completed its work in June 1906. In addition to completion of these features, Reclamation had a house built at the reservoir site to be used as project headquarters and ran a telephone line to the house from Roswell. In all, the cost of construction came to \$356,363.88.<sup>27</sup>

Dismissal of Taylor–Moore Construction was an unfortunate episode that took several years to resolve. The company owed \$33,593.80 on the defaulted contract, later reduced by \$5,676.13 due to the “excess amount of riprap.”<sup>28</sup> It also faced a lawsuit filed by Roswell National Bank for possession of the construction equipment, “praying for an injunction against the use of the equipment and material by the United States.” The case was eventually dismissed, and the government did take possession of the equipment and even permitted WB&D to use it. By the end of construction, the equipment was “pretty thoroughly worn out, and at auction will not bring a great deal of money.”<sup>29</sup>

Workers lost, too, due to delinquent payments from T–MC. Workers petitioned Theodore Roosevelt and other national leaders for help in securing wages due them from funds being held by the Department of the Interior. “It has been stated to us that the government is

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26. B. M. Hall to F. H. Newell, July 7, 1906; Thomas Ryan to Director of USGS, February 8, 1906; B. M. Hall to F. H. Newell, November 29, 1905, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 509.

27. Project History, Hondo Project, Vol. 1, 1904 to 1915, 63, in RG 115, Entry 10, Project Histories, Feature Histories, and Reports, 1902-1932, Box 198; U.S. Department of the Interior, U.S. Geological Survey, *Sixth Annual Report of the U.S. Reclamation Service, 1906-07* (Washington, D.C.: Government Printing Office, 1907), 151-4.

28. Director to Taylor-Moore Construction Co., June 1, 1908; Acting Director to Fidelity & Deposit Co., December 11, 1908, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 508.

29. Acting Director to Secretary of the Interior, November 1, 1906; W. M. Reed to F. H. Newell, October 27, 1906, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 509.

holding back some twenty thousand dollars which is due the above named company for work done on this project during the months of April and May.” R. M. Boller was one of 150 workers for the company who demanded a fair payment to provide for “men with families women and children suffering for the necessities of life.” In response to these petitions, the matter was referred to the Comptroller of the Treasury who decided that payments would not be made “either directly to the claimants or to the company.”<sup>30</sup>

The workers were not the only ones who stood to lose from the water program on the Hondo Project. Landowners in the Roswell area were soon to find that little, if none of the promised water would ever be delivered. The water never did reach the reservoir embankments; if any water reached the reservoir at all, it settled into the lowest levels of the basin, barely within reach of the outlet canal.

### **Post-Construction History and Project Benefits**

It was not immediately clear that project plans would be abandoned. For at least the first few years after construction, project personnel blamed the delay in getting Hondo up and running on drought. Of course, the porous holes and seepage had been known at least since 1904, but this was not of major concern and, it was believed, could be remedied by patch repairs. With a little more patience, ingenuity, and capital, project engineers and water users believed the project could become operational, and they invested a lot of energy to see that happen.

But before plans were drawn to add to the original design, Reclamation faced two lawsuits, both filed in the district court of Chavez County—one by Rufus J. Donnahoo and the other by T. M. Daniel regarding water rights on the Hondo. Both cases were dismissed based on

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30. Petition to “His Excellency the Honorable Theodore Roosevelt,” June 18, 1905; R. M. Boller to Hon. Charles P. Neill, June 27, 1905; Thomas Ryan, Acting Sec., to Director of USGS, July 29, 1905, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 508.

the fact that the government possessed the primary right to the water.<sup>31</sup>

In the years following the turn of the century, the region cut by the Hondo River was caught in the grip of a prolonged drought. Even on a normal year the river rarely produced the amount of water expected by project boosters, but during the construction and post-construction years the runoffs declined precipitously. In 1909 it flowed at a trickle at 2,100 acre feet; 1910, 4,200; 1911, 21,000; 1912, 13,000; 1913, 4,000. In those years the river bed and artesian wells went dry. Fear welled among farmers that the system would fail completely and that the only means of watering their fields would be through pumping and periodic summer flooding.<sup>32</sup>

As serious as the drought might have been, however, runoff was of secondary concern. Yes, water flows had not been properly understood before construction of the project, but neither had the nature of the faulty bottom of the reservoir. In 1906 the board of engineers made another inspection of the reservoir site and in a lengthy letter described the nature of the cavities. The members of the board wrote that it was possible the cavities had a subsurface outlet given that water probably had accumulated in the natural basin but had never filled. The board described one of the larger cavities: “the entrance to a small cave from which a tunnel-like passage leads off into a mass of gypsum. . . . The underground passage can be followed some 30 or 40 feet and its walls and roof are worn into fantastic shapes by water. There can be no question that at some time in the past, it was a water conduit of no small capacity.” Given the probability of seepage, it was decided to fill the holes—what they called “puddling.” In the years following completion of the project, numerous repairs were made to the reservoir floor, but these were largely ineffective. In fact, personnel continually found additional holes, “larger and more numerous than ever

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31. *Sixth Annual Report*, 11.

32. Project History, Hondo Project, Vol. 2, 1904 to 1915, 98, in RG 115, Entry 10, Project Histories, Feature Histories, and Reports, 1902-1932, Box 198; *Seventh Annual Report*, 146-7.

before.” Reclamation discontinued filling the holes with “clay material” and resigned itself to the fact that if the holes were to be patched it would be by silt deposits from the river.<sup>33</sup>

The reservoir did hold some water after periods of heavy rainfall, but it was seldom above 2,000 acre feet and even then farmers rarely used the water in the basin before it seeped through the cavities. After heavy rain fall in the spring of 1913 and a flood that June, “all irrigation, both in April and in June and July, was direct from the river. None was taken out of the reservoir.”<sup>34</sup> Floods may have provided much needed water to the water users along the Hondo River, but they also caused considerable damage to project features. They filled laterals and ditches with silt and sometimes did damage to the earthwork on the dam site.<sup>35</sup>

Some people believed that something serious had to be done to stop the leakage in the reservoir. In 1909 the Rio Hondo River Water Users’ Association petitioned the federal government to “stop the holes that are constantly developing, either by building a temporary dike to wall off the bad area, until it can be fixed or by ditching from the intake to carry silt laden water to the effected area or by installing a small hydraulic dredge to pump silt into holes and upon bad areas of the bottom.” Water users also recognized that the reservoir was a lost cause and that a concrete-lined canal would be needed to deliver water over porous ground. The water users’ association first proposed this idea in 1909: a canal twelve miles long, connected by a diversion dam, carrying water from the Diamond A Ranch to the intake of the Hondo Reservoir.

Measurements taken by the territorial engineer in 1908–09 and the Reclamation Service in 1914

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33. Board of Engineers to F. H. Newell, June 24, 1906, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 506; Acting Director to Assistant Engineer, November 6, 1912, 77; Assistant Engineer to Acting Director, Nov. 15, 1912, Project History, Hondo Project, Vol. 2, 1904 to 1915, in RG 115, Entry 10, Project Histories, Feature Histories, and Reports, 1902-1932, Box 198.

34. “Loss of Water on the Lower Hondo,” from Report of W. W. Follett, 1913, 71, Project History, Hondo Project, Vol. 2, 1904 to 1915, RG 115, Entry 10, Project Histories, Feature Histories, and Reports, 1902-1932, Box 198.

35. Project History, Hondo Project, Vol. 1, 1904 to 1915, 21, in RG 115, Entry 10, Project Histories, Feature Histories, and Reports, 1902-1932, Box 198.

confirmed the fact that the canal would save well over 10,000 acre feet from being lost.<sup>36</sup>

Backed solidly by the Rio Hondo River Water Users' Association, the proposed canal received serious attention from the Reclamation Service. It was estimated that the canal would water 5,000 acres and "probably bring great relief and make of this project[,] which is now an apparent failure, a success, partially if not wholly."<sup>37</sup> But there was a lot to be skeptical about, whether there was enough water to reach the Diamond A Ranch. Reclamation only considered undertaking the project if the water users' association agreed to a repayment contract, though Reclamation officials feared that at an estimated cost of about \$50 per acre farmers would have a difficult time making payments. The government was not willing to lose more money on the project.<sup>38</sup>

In addition to these concerns, the proposal to build a canal ran up against a legal roadblock. The issue was over who owned the rights to the "wasted" water that flowed downstream. Users in the Roswell area had a weak claim to the water because it generally seeped into the ground and never reached their lands in the first place. To F. H. Newell, the biggest problem with the Hondo Project was "the lack of adjudication of the waters of this river and of judicial decision which will absolutely define the ownership of the waters." By 1912, in order to clear up legal misunderstandings, Newell decided to secure all legal rights to water

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36. Board of Directors of the Rio Hondo Reservoir Water Users' Association to Richard A. Ballinger, September 11, 1909, box 508; James B. Herbst to L. E. Foster, April 17, 1915, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 506.

37. W. M. Reed, report made to Louis C. Hill, November 9, 1910, 37, Project History, Hondo Project, Vol. 2, 1904 to 1915, in RG 115, Entry 10, Project Histories, Feature Histories, and Reports, 1902-1932; see also Supervising Engineer to W. M. Atkinson, May 28, 1910, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 508.

38. D. C. Henny to Acting Chief Engineer, August 22, 1914, 108, Project History, Hondo Project, Vol. 2, 1904 to 1915, in RG 115, Entry 10, Project Histories, Feature Histories, and Reports, 1902-1932, Box 198.

before expending any money on water projects.<sup>39</sup>

Despite these strikes against the canal, the water users' association very nearly got their canal. In February 1914 the acting project manager informed the water users that they had been allotted \$103,110 for construction of the lateral distribution system, the canal, and its operation and maintenance. But that decision was evidently turned on its head. Franklin K. Lane, secretary of the interior, cited recent reports claiming that the canal would only deliver 5,000 acre feet of water and likely not be worth the expense. So in 1915 the decision was to do nothing further with the Hondo Project—much to the consternation of local landowners. As late as 1916 water users still held out hope that Congress would fund the canal and that the Reclamation Service would operate it—at the expense of the water users' association—but after 1915 Reclamation resumed no serious discussion about following through with the proposal.<sup>40</sup>

With the decision to forgo any attempts to revive the project, Reclamation's time on the Hondo River had essentially come to an end. Some spoke of turning the property over to a water association “on such terms that payment can be made within reasonable time.” Others suggested “disposing of our Hondo troubles” by selling the project property and features to settlers and to dismiss the court proceedings. In 1915 A. P. Davis, at the time chief engineer, supported selling the project and suggested bringing together all interested parties for the “formulation of a plan.” But the government did not fully abandon the project. In 1917 Congress discontinued funding for O&M, and on September 2, 1922 the government turned operation of the project to the

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39. F. H. Newell to George Curry, July 30, 1912, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 508.

40. Acting Project Manager to Rio Hondo River Water Users Association, February 12, 1914; F. K. Lane to Reid, May 4, 1915, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 508; Foster to Director, August 17, 1916, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project Box 506.

Hondo Irrigation Association yet retained title to the property.<sup>41</sup> Moreover, Congress never officially cancelled water contracts on the Hondo, as it had done on the Garden City Project in Kansas and Williston Project in North Dakota. But this did not much matter because Reclamation had only issued temporary, one-year water contracts on the Hondo.<sup>42</sup>

Records show that in the 1920s locals occasionally petitioned the government to revive the Hondo Project. One hopeful booster was W. Richardson, who said two new considerations would make the project feasible: “the very urgent need of storing this wasted water for cotton growing and the fact that tons & tons of high explosives made for war purposes are now being stored away useless [*sic*] and deteriorating.” He proposed using explosives to blow out the cavities and then fill the holes with sediment. Convinced that with “new methods and engineers and plenty of TNT this would not prove a hopeless case.” But the answer to this and other queries was always the same: “No.” Reclamation kindly but firmly stated that it had no plans to do anything further with the Hondo Project.<sup>43</sup>

The government also had no plans to help landowners who suffered as a result of the project’s failure. W. E. Blakely had owned 80 acres of land in the area, “fenced and seeded it to alfalfa and orchard, built a house and did all other necessary work to make a home of it and lived in it five years.” But after no water was delivered he sold it back to the original owner and lost \$9,000 on his investments. He wrote Reclamation requesting compensation for his losses, but Commissioner Elwood Mead replied that it “hardly seems feasible” to compensate all owners

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41. Will King to Reclamation Commission, November 16, 1914; “Hondo Project, New Mexico,” [1915]; A. P. Davis to F. K. Lane, January 2, 1915; Davis to Water Users, April 1, 1915, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 506.

42. Acting Commissioner to H. C. Maynard, August [?], 1927; Elwood Mead to Bronson M. Cutting, November 21, 1929, in RG 115, Entry 7, General Administrative and Project Records, 1919-45, Project Files, 1919-29, Box 543.

43. W. Richardson to A. P. Davis, May 26, 1924; E. Mead to Richardson, June 4, 1924; see also J. B. Herbst to A. B. Fall, October 2, 1921; E. A. Cahoon to A. B. Fall, October 29, 1921, in RG 115, Entry 7, General Administrative and Project Records, 1919-45, Project Files, 1919-29, Box 544.

who sustained losses on reclamation projects. Farmers were on their own.<sup>44</sup>

Why did the Hondo Project fail? In its first years, Reclamation and water users blamed drought conditions. Since they believed the drought was responsible for the misfortunes, it was only a matter of time before “normal” conditions would make the project functional. When an editorial in *Leslie’s Weekly* sharply criticized the Hondo Project, W. M. Reed sarcastically fired back, “It seems to me that the weather bureau might be charged with neglect in not keeping climatic conditions as usual.” Reed’s point was that no one could have predicted the drought.<sup>45</sup>

It was to become apparent, however, that the flow of the Hondo River was perennially low, even during “normal” conditions. F. H. Newell and other Reclamation officials lamented “our placing too much confidence in [local people’s] original statements of water supply.” In his mind, more than any other factor, it was the faulty, and unfortunate, reliance on estimates of the annual water flow that doomed the project.<sup>46</sup> Other problems also surfaced, including the revelation of a porous reservoir and heavy water usage by land owners in the upper reaches of the Hondo and its tributaries. A report in 1913 even placed blame on a 1902 storm for altering “the conditions of the bed of the Hondo River” and making seepage more common.<sup>47</sup> A 1917 publication pointed to the hastily, far-from-complete preliminary investigations, and lamented that the porous foundation had been found after the “experts available” made their judgment and construction began.<sup>48</sup>

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44. Hiram W. Johnson to Elwood Mead, June 10, 1926; Mead to Johnson, June [?], 1926, RG 115, Entry 7, General Administrative and Project Records, 1919-45, Project Files, 1919-29, Box 543.

45. W. M. Reed to Director, May 7, 1910, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 507.

46. F. H. Newell to Supervising Engineer, July 24, 1913, in RG 115, Entry 3, General Administrative and Project Records, 1902-1919, Hondo Project, Box 508.

47. Report on the Hondo Project, New Mexico, Water Supply, by Maurice G. Parsons, November 26, 1913, 1, in RG 115, Project Reports, 1910-55, Accession No. 8NN-115-85-019, Box 438.

48. George Wharton James, *Reclaiming the Arid West: The Story of the United States Reclamation Service* (New York: Dodd, Mead and Co., 1917), 242-3.

Whatever the cause of the failure, the defunct Hondo Project reflected negatively on the newly formed Reclamation Service. Hondo was a small and obscure project, tucked away in the back country of the Southwest, and the losses were not as high as had accrued on larger projects. Yet the project, an utter failure, attracted a disproportionate share of bad press and was a sore point in the government's efforts to reclaim the arid West. In the case of the Hondo Project repayment was never an option and the government absorbed all the construction and O&M costs.

### **Conclusion**

No doubt, the area embraced by the Hondo River never realized the surface water irrigation potential that boosters and locals had envisioned. The Hondo was just too dry and erratic during the summer months. However, Roswell basin does support flourishing agriculture irrigated with groundwater rather than surface sources. Low river flows, together with a porous reservoir, labor problems, and lawsuits contributed to one of Reclamation's most glaring failures. Some water from the river was used for irrigation, but it went to people who had already owned land in the area, and even those people operated at a loss. It is difficult to say whether Reclamation was too cautious in refusing to construct the concrete-lined canal, but it did so not wanting to invest more money on a project that, it was beginning to realize, never should have been undertaken in the first place. What should have been done is a moot point; the project deserves our attention for what it reveals about the early efforts (and frustrations) of government water projects in the West.

### **About the Author**

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