THE INDIAN PROJECTS Blackfeet Project

Garrit Voggesser Bureau of Reclamation History Program Denver, Colorado 2001

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Blackfeet Project

Introduction to the Blackfeet Project

The Federal Government initiated the Blackfeet Project as part of a plan designed to extinguish Federal jurisdiction over the Indians by settling them on allotments and providing them with water for irrigated farming. Although good intentions lay behind the Federal program for settling the Blackfeet "Indian Problem," misunderstandings tainted the undertaking. Federal goals to remake the Indians in the image of white yeoman farmers proved irreconcilable with the views and beliefs of the Blackfeet. As one Bureau of Indian Affairs (BIA) official later surmised, "These Indians took little or no part or initiative in these events. They did not like the changing times and their attitude was one of resigned acceptance or at most passive resistance." The conclusion exemplified the difficulty that wrought many of the Indian Projects.¹ Not only did Indians have little interest in becoming assimilated into the white man's world, but Federal officials failed to consider the needs and desires of the Blackfeet. Work on the project oscillated between activity and idleness as the two cultures struggled to find an ideological middle ground. Clearly, the story of the Blackfeet Project is one of difficulty, discouragement, and disappointment. However, in hindsight, to fully assess the project a historian must try to glean the positive accomplishments as well as its limitations. The success achieved in the Blackfeet Project largely came through providing water for white settlers, some income for Indians, and despite their limited use of it, a preservation of the reserved treaty rights of the Blackfeet to land

^{1.} For more information on the Indian Projects, see Garrit Voggesser, <u>The Indian Projects</u> Bureau of Reclamation History Program, Research on Historic Reclamation Projects (Denver, Colorado, 2001) and the other individual histories on the Crow, Flathead, Fort Peck, and San Carlos projects.

and water.2

Project Location

The Blackfeet Project is located on the Blackfeet Indian Reservation in Teton and Glacier counties in the northwestern part of Montana. The reservation occupies an area somewhat larger than the state of Rhode Island, and extends from the Rocky Mountains fifty miles to the east, and from the Canadian border approximately fifty miles to the south. The watershed area of the project covers 368 square miles with a water supply from the Two Medicine River and Cut Bank, Badger, Birch, and Blacktail Creeks. Reclamation intended the project to irrigate lands located in the central and eastern portions of the reservation, and characterized by an "excellent grade" of sandy, brown loam to a depth of four feet underlain by gravel.³

The plan for the Blackfeet Project included an irrigable area of approximately 111,000 acres and involved six irrigation systems: Cut Bank North, heading on the north side of Cut Bank Creek and serving the northeastern portion of the reservation; Cut Bank South (originally Carlow), heading on the south side of Cut Bank Creek and serving the north-central part of the reservation; Two Medicine, diverting water from Two Medicine River, which rises in Two Medicine Lake and is situated on the east slope of Two Medicine Pass along the Continental Divide, and supplying water to the eastern part of the reservation; Badger-Fisher, diverting from Badger Creek and supplying water from the Four Horns Reservoir to irrigate land between Birch and Badger Creeks; Piegan, diverting water from the south bank of Badger Creek to irrigate

^{2.} United States Department of the Interior (DOI), Bureau of Indian Affairs (BIA), "A Report On Plans and Estimates For the Completion of the Blackfeet Irrigation Project, Blackfeet Indian Reservation, Montana," March 1954, Records of the Bureau of Indian Affairs, Record Group 75, National Archives and Records Administration – Rocky Mountain Region (Denver, Colorado), iii-v.

^{3.} U.S. DOI, Bureau of Reclamation (USBR), "Blackfeet Project, Annual Project History, February 1, 1910," vol. 1, Records of the Bureau of Reclamation, Record Group 115, National Archives and Records Administration – Rocky Mountain Region (Denver, Colorado), 2; U.S. DOI, USBR, Seventh Annual Report of the Reclamation Service, 1907-1908 (Washington, D.C.: United States Government Printing Office, 1908), 96-8.

lands known as the Piegan Flats in the south-central part of the reservation; and, Birch Creek, diverting from Birch Creek to provide irrigation for land between Birch and Blacktail Creeks in the southern part of the reservation.⁴

Historic Setting

Pre-Contact

According to Blackfeet views of creation, "in the beginning all the world was water."

Old Man, the creator, and Old Woman designed the Blackfeet and all the people of the earth.

Three separate tribes made up the Blackfeet: the Blackfeet proper (Siksika) in the north, the Bloods (Kainah) south of them, and the Piegans ("Poor Robes") in the south. The tribes were politically independent, but shared the same language, customs, intermarried, and made war upon common enemies. The Blackfeet belonged to the Algonquian language group. Most likely, they migrated from the woodlands of the Great Lakes Region four to five hundred years ago, making them the earliest Algonquian residents of the Plains. Two key factors pulled and pushed the Blackfeet west. They moved in pursuit of the opportunities that big-game hunting offered, and because the growing populations of Algonquian tribes forced them to migrate. They may have lived in the transitional zone between the shortgrass plains and forests for a century or more before they moved on to the lands of the upper tributaries of the Saskatchewan and Missouri River in the eighteenth century.⁵

By the early years of the eighteenth century, the "aboriginal" Blackfeet thus lived in the North Saskatchewan River Valley near the Eagle Hills. The northern climate did not allow for

^{4.} Seventh Annual Report, 96-7; "Blackfeet Project History, 1923," vol. 17, 1; U.S. DOI, BIA, "1992 Seed Report On Lower Two Medicine Dam, Blackfeet Agency, Montana" (Denver, Colorado, August 1992), map insert.
5. Michael P. Malone and Richard B. Roeder, Montana: A History of Two Centuries (Seattle: University of Washington Press, 1976), 12; John C. Ewers, The Blackfeet: Raiders on the Northwestern Plains (Norman: University of Oklahoma Press, 1958), 3-7.

hunted a number of small mammals, bear, deer, elk, moose, and most of all, bison. Buffalo Indians adjusted their way of living to the migrations of the animal, following them as they moved to different regions in different seasons. The Blackfeet most often used the communal surround for capturing buffalo. While the animal provided for most essential needs, the other wild game supplied lighter skins for use in warm weather and sustenance when bison were scarce. Despite the concentration on meat, the Blackfeet supplemented their diet with wild plants, roots, and berries. During the first few decades of the eighteenth century, the tribe gradually made their way into their "historic homeland" at the eastern base of the Rocky Mountains and began to experience contact with Euro-Americans that would revolutionize their world. As Blackfeet scholar, John C. Ewers commented, the influences of the white man "rapidly transformed them from plodding, stone age pedestrians into mobile horsemen possessing some of the advantages of an age of metals.⁶

Post-Contact

Although some sources indicate that the Blackfeet may have come across European explorers in the 1650s, they most likely encountered Euro-Americans on a more regular basis beginning around the 1730s. At first, contact occurred in the form of trade as firearms and other European-made articles began to trickle into their territory from the Hudson Bay. As trade for furs became more frequent, the Blackfeet saw more of the white man who brought with them an assortment of goods and "attractive luxuries." Because of these new "wonders," the Blackfeet called the traders "Napikwan," or Old Man Person, after their creator. Whether they met them at Saskatchewan trading posts or in their own territory, the first whites the Blackfeet met were

^{6.} Ewers, 7-9, 11, 15.

probably French. After fixing trade and acquiring the horse, the Blackfeet world became a very lucrative and powerful empire. They frequently clashed with nearby tribes, including the Shoshone on the Canadian-Montana Plains, and the Salish and Kootenai of the northwestern Montana, as they raided for horses and other goods. This burgeoning and warlike empire bode well for the Blackfeet, and by the 1780s they numbered close to 15,000. Unfortunately, their forceful incursions also brought woes. Raiding an enemy camp in 1781, they found Shoshone dead and dying from smallpox. The Blackfeet carried the "strange plague," along with the stolen camp equipment, back to their own communities.⁷

By the early-1800s, traders considered the Blackfeet the "lords of the best fur lands in the region." However, the Indians quickly made distinctions between their "old friends" from the north and their new enemies, the Americans. Hostilities between the Blackfeet and Americans began with their first encounter when the Lewis and Clark Expedition passed through their territory in 1806 on their return from the Pacific. In essence, the Blackfeet saw them as uninvited guests and ignorant of proper diplomacy. In the ensuing quarter century, the conflicts only increased. American traders accused their British rivals of inciting the Blackfeet to "guerilla warfare" for business purposes, but whatever the cause, relations remained unstable. In 1830, Kenneth McKenzie, one of the "old friends" from Canada who had changed sides to work for the American Fur Company, negotiated a peace settlement with the Blackfeet based on promises of equitable trade. Rather quickly for the Blackfeet, the peaceful trade encouraged a debilitating dependence on whites for guns, liquor, and other goods. In 1837, another bout with smallpox, transported along with trade items up the Missouri, exacerbated the rapidly diminishing power of the Indians. As many as half the Blackfeet perished, and their "military

^{7.} Malone and Roeder, 12; Ewers, 19, 23, 29-30.

supremacy was broken forever."8

By mid-century, the white man's ways continued to radically alter the world of the Blackfeet. Catholic nuns worked their way into Blackfeet territory from Canada, establishing the St. Peters and Holy Family Missions. In October of 1855, Isaac Stevens, Governor of Washington Territory, opened treaty negotiations with the Blackfeet near the mouth of the Judith River. Stevens proved himself an apt diplomat, getting the roaming and warlike raiders to agree to a general reservation with boundaries from the continental divide to the mouth of the Milk River, and from the Canadian border southward to the upper Musselshell River. He even induced the Blackfeet to accept a common hunting ground in Montana where they would have to respect the needs of other tribes, and to agree to the limited usage of reservation lands by whites. Montana gold rushes in the early-1860s that focused on the prime gold fields in the southern parts of the reservation disturbed the tenuous agreement. In January of 1870, the tentative grip on peaceful relations broke when General Phil Sheridan ordered four army companies, under the leadership of Major Eugene M. Baker, to attack the Blackfeet in retribution for the killing of a white trader. On January 23, the troops massacred 173 Indians, including 53 women and children, at a village along the Marias River. For all intents and purposes, the Baker Massacre ended Blackfeet resistance to the "white invasion."

Shortly thereafter, the Department of the Interior established the Blackfeet Agency on the Teton River and then moved it to the Upper Marias River. In 1873, an executive order by President Ulysses S. Grant set aside much of northern Montana, from the continental divide to the Dakota border and with a southern boundary running along the Sun River and Missouri

^{8.} Malone and Roeder, 39, 44, 47; Ewers, 45, 55, 57.

^{9.} Malone and Roeder, 49, 89, 90-1; Ewers, 216-21, 250-1.

Rivers, for the Blackfeet, Gros Ventre, Assiniboine, and Sioux tribes. One year later, the Federal Government moved the southern border of the Blackfeet territory northward from the Sun to the Marias River, eliminating a good portion of their best hunting grounds. This decision proved an ominous sign of things to come. In the early-1880s, the once vast numbers of buffalo had declined to a few stragglers and many Plains tribes began to suffer from chronic food shortages. More and more, they came to depend on small gardens and cattle herds at the agencies, and were "starved by [a] Congress" that "lacked the means to sustain them." At least one-quarter of the Piegan band of the Blackfeet in Montana starved to death from 1883 to 1884. Historian John C. Ewers later lamented, "So many victims were buried on the hill south of Badger Creek during that period that the Indians came to refer to it as 'Ghost Ridge'."

By the end of the nineteenth century, government agents found the Blackfeet increasingly more willing to exchange land for things that would help them to survive. This certainly intrigued white settlers and cattlemen who had long cast "envious eyes" on the reservation lands. In 1887 and again in 1895, the Blackfeet ceded hundreds of thousands of acres of land, reducing the reservation to 1.5 million acres. Even more pleasing to the government, and in response to its promise to "reward industry," the Indians began to break tracts of land and plants oats, potatoes, and barley. At the same time, the Blackfeet began their transition into cattlemen. In 1900, their diligence began to pay off, and they owned upwards of 12,000 head of cattle, harvested 1,200 bushels of crops, and cut 3,700 tons of hay. In 1907-1908, encouraged by the progress the Blackfeet had made in becoming small farmers, Congress authorized allotment and the Indian Service began plans for the Blackfeet Irrigation Project. Unfortunately, either the actions of a few industrious Blackfeet farmers deceived the government, or government officials

^{10.} Malone and Roeder, 91, 107; Ewers, 270, 290-4.

merely fooled themselves.¹¹

Irrigated farming simply did not entice many Blackfeet. Many turned to cattle ranching, which fell more in line with their traditional lifestyle. Even though the livestock industry experienced a boom during World War I, reliance on cattle had negative consequences. From 1918 to 1920, drought and severe winters struck much of Montana and the Northwest. The climatic disasters wiped out much of the crops planted by the Blackfeet, and thousands of cattle and horses starved to death without the hay they needed to survive. In 1919 and 1920, the Blackfeet sold 4,400 of the 5,000 cattle in the tribal herd due to lack of feed. The problems took a serious toll on both Indians and whites on the reservation. In 1923, the Federal Government endorsed "Five Year Programs" that were designed to improve food production and community development through agriculture. For some Indians, the programs brought positive change. However, on the Blackfeet reservation, the cold climate and high altitude limited the benefits of intensified farming techniques. In 1926, after a visit to the tribe, the Board of Indian Commissioners reported that the Blackfeet only farmed 306 acres, or approximately 1 percent, of the 21,341 acres utilized for agricultural purposes. By 1927, government agents reported that crops had only been sufficient in one out of four years to support the tribe. In one respect, the programs failed because the Indians did not have the capital or the experience to make farming programs work effectively. On the other hand, a true misunderstanding of the needs and wishes of the Blackfeet lay at the heart of the matter. Yet, the Five Year Program increased the number and size of gardens on the reservation, offering some signs of hope.¹²

The Blackfeet Project certainly provided the tribe with a few benefits. Most strikingly,

^{11.} Ewers, 297. 303-7, 313-14, 317; Janet A. McDonnell, *The Dispossession of the American Indian, 1887-1934* (Bloomington: Indian University Press, 1991), 11, 82.

^{12.} McDonnell, 82, 38, 40-2; Ewers, 317-18, 320-2.

Indian labor played a substantial role. The wages from project work supplied much-needed income that few other sources offered. Of course, manual labor taught vocational skills and the lessons of industry, efficiency, and independence that government officials envisioned as essential to bringing the Blackfeet into the American mainstream – at least occupationally. In 1930, the Preston-Engle task force considered the Blackfeet Project "hopeless" and recommended its abandonment. In the next twenty-five years, the government alternatively revived and eschewed the project, but the Indian Service remained steadfast in its goal to prove the benefit and "feasibility of the ultimate development" of the Blackfeet reservation.¹³

Project Authorization

On March 1, 1907, an act of the Fifty-ninth Congress, second session, authorized the Blackfeet Project in order to fulfill treaty stipulations with the tribe. The act appropriated \$300,000, with \$100,000 immediately available for the construction of irrigation systems. On March 8, 1907, the Indian Service and Reclamation signed an agreement of cooperation on all Indian Projects. The arrangement called for the Indian Service to supply the funds, and for Reclamation to handle all aspects of design, engineering, and construction.¹⁴

Construction History

Prior to Reclamation involvement, entrepreneurs built canals for private use and the Indian Service conducted some limited work on irrigation systems for the Blackfeet. In 1899, the Conrad Investment Company completed a canal heading on Birch Creek in an attempt to irrigate approximately 40,000 acres of deeded land situated east pf the reservation and near the

^{13.} Donald J. Pisani, "Irrigation, Water Rights, and the Betrayal of Indian Allotment," *Environmental Review* 19 (Fall 1986): 159; Preston and Engle, 2219-20; "A Report On Plans and Estimates For the Completion of the Blackfeet Irrigation Project," ii, iv.

^{14.} Seventh Annual Report, 96; "Blackfeet Project History, February 1, 1910," vol. 1, 5, 9.

town of Conrad. In 1907, the Federal Government, at the insistence of the Indian Service, brought suit against the company, arguing that it had diverted water from a creek that the Blackfeet had a prior right to. The federal court at Helena, Montana handed down a decision sustaining the claim of the Indian Service, and confirmed the right of the tribe to use as much water as it needed from Birch Creek. From 1900 to 1904, the Indian Service conducted several investigations on the irrigation possibilities of the reservation. In 1903, it built a six-mile canal heading on Cut Bank Creek. The Indian agent also reported that he had assisted white residents and the "more intelligent Indians" in constructing a number of small ditches that covered several hundred acres. In 1904 and 1905, investigations by engineers of the St. Mary's Project, which later became part of the Milk River Project, discovered another feasible diversion from Lower Cut Bank Creek to irrigate approximately 30,000 acres. This initial work supported the development of the larger Blackfeet Project by Reclamation.¹⁵

Reclamation Construction

Reclamation's involvement spanned a period of sixteen years with an actual construction period of about twelve years. It intended the project primarily to meet the needs of the Indians for irrigated lands for the raising of forage and grain crops to supplement their grazing lands. Reclamation conducted considerable investigations, surveys, and construction from 1908 to 1920. But between 1920 and 1924, several factors limited any significant progress on Blackfeet. In actuality, the same problems hindered Reclamation throughout their tenure. The Blackfeet Project suffered from small appropriations, Indian disinterest, a lack of farmers, speculation by white ranchers, and consistent damage caused to canals by erosion and gophers. ¹⁶

^{15. &}quot;Blackfeet Project History, February 1, 1910," 3-5.

^{16.} *Ibid.*, 3.

Reclamation's plan for the Blackfeet Project consisted of three reservoirs, three dams, fifty-nine miles of canals, and 104 miles of laterals. The initial plan estimated an irrigable area of 111,000 acres covered by six irrigation divisions: Two Medicine, Piegan, Badger-Fisher, Birch Creek, Cut Bank North, and Cut Bank South. Reclamation began the preliminary survey work in May of 1908, and in July started construction. Engineers decided to begin with the Two Medicine Unit and estimated that it could be "economically completed" by 1911 and the whole project by 1916. They added one important caveat to this declaration; the plans would only come to fruition "if the funds were available." 17

Two Medicine Division

Two Medicine served as the primary irrigating system for the Blackfeet Project and covered an irrigable area in the east-central portion of the reservation. The plans for the division included Two Medicine Lake (Reservoir) with an area of 723 acres, a capacity of 10,000 acrefeet, and two features. The main dam, a rock-fill crib type, had a proposed maximum height of fifty feet, a length of 435 feet, and a fifty-foot spillway. The plan also involved a brush and rock diversion dam with a height of four feet, a weir length of 165 feet, and an earthfill length of 1,000 feet. In addition, the proposal for Two Medicine included Spring Lake, a natural depression to be utilized as a reservoir, with an area of 1,400 acres, a capacity of 29,000 acrefeet. An earth-fill dam with a height of twenty-five feet, a length of 1,700 feet, and fifty-foot spillway would impound Spring Lake. Engineers estimated that the Two Medicine division would provide irrigation for at least 45,000 acres. ¹⁸

^{17.} Seventh Annual Report, 96, 98; DOI, USBR, Eighth Annual Report of the Reclamation Service 1908-1909 (Washington, D.C.: GPO, 1910), 90; "Blackfeet Project History, February 1, 1910," vol. 1, 66; "Blackfeet Project History, 1923," vol. 17, 1.

^{18.} Seventh Annual Report, 96-7.

The Two Medicine canal system drew its water supply from the Two Medicine River, which rose in Two Medicine Lake. Plans called for a forty-three mile long main canal with a capacity of 200 second-feet for thirty miles, and thereafter decreasing to a minimum of 50 second-feet at the end. For the first thirteen miles, when not used as a distributing system, it would act as a feed canal for Spring Lake. The sixteen mile, 170 second-feet capacity, south branch canal would draw its supply from Spring Lake. The lands under the canal system lay both north and south of the Great Northern Railway, which bisected the reservation. The steep terrain and "disintegrating character" of some of the slopes in the first ten miles of the canal required the construction of numerous bench flumes and cutting through steep side hills. ¹⁹

Reclamation conducted surveys on the reservoirs, dams, and canals from the spring of 1908 to the spring of 1909. In late-July of 1908, excavation of the main canal began by force account and principally with Indian labor and teams. In the fall of 1910, Reclamation first turned water into the canal for testing, but within three days a section of bank slid out and caused a break in the canal. As soon as the winter freeze broke in the spring of 1911, Reclamation hired a force of Indians to clean out and rebuild the canal. On June 8, Reclamation once again turned water into the canal, but for the next two months of attempted operation water had to be turned out repeatedly to repair leaks and breaks along the first two miles. By June 30, 1911, laborers completed thirty-five miles of canal with capacities of approximately 100 second-feet, twenty-five miles with capacities of less than 50 second-feet, and twenty-five miles of laterals. Besides the canal and lateral system, work forces also finished the headworks and principals structures on the main canal. That fall, Reclamation had adequately completed work on Two

Medicine to deliver water to approximately 24,000 acres.²⁰

In June of 1911, Reclamation forces began work on the excavation of Two Medicine

Lake Dam, finished the 43-mile canal system, and completed 129 miles of laterals. In his report
of June 30, 1912, the project engineer commented, "Practically no water has been delivered for
irrigation, but there has been a flow the entire length of the main canal for several months. Most
of the laterals have been primed." Reclamation had fixed the canal problems, primed the
laterals, were ready to provide water, and simply needed users. Late that fall, government forces
completed the concrete spillway and outlet structures for the dam, and in August of 1913,
finished the embankment and paving of Two Medicine Dam. Laborers made the paving material
for the water face of the dam from boulders obtained at the borrow pits for the embankments
located on the southeast side of the dam. They placed about 1,250 cubic yards of small rock
riprap on the downstream face of the dam as a protection against erosion from water tapping the
dam during heavy wave action. Coming in more than 50 percent above expectations, the storage
reservoir could hold 16,000 acre-feet of water.²¹

Between May 24 and September 18, 1914, Reclamation operated the Two Medicine canal and supplied water to about 700 acres, consisting of fifteen farms owned by Indians.²² Project supervisors proved somewhat ambivalent about the system, remarking, "The farming operations were not wholly successful on account of the inexperience of the farmers and their

^{20.} Eighth Annual Report, 91; DOI, USBR, Ninth Annual Report of the Reclamation Service, 1909-1910 (Washington, D.C.: GPO, 1911), 142; DOI, USBR, Tenth Annual Report of the Reclamation Service, 1910-1911 (Washington, D.C.: GPO, 1912), 119-21; DOI, USBR, Eleventh Annual Report of the Reclamation Service, 1911-1912 (Washington, D.C.: GPO, 1913), 92; "Blackfeet Project History, 1911," vol. 5, 48.

^{21.} Eleventh Annual Report, 92; DOI, USBR, Twelfth Annual Report of the Reclamation Service, 1912-1913 (Washington, D.C.: 1914), 110; DOI, USBR, Thirteenth Annual Report of the Reclamation Service, 1913-1914 (Washington, D.C.: GPO, 1915), 130; DOI, USBR, Fourteenth Annual Report of the Reclamation Service, 1914-1915 (Washington, D.C.: GPO, 1915), 116; "Blackfeet Project History, 1913, vol. 7, 27, 32.

^{22.} The sources disagree on the actual acreage irrigated; one source stated 760 acres, while another stated 675.

natural disinclination to work, and on account of the lateness of the beginning of irrigation...[but] considerable interest has been aroused in irrigation." From the spring of 1914 to the end of 1918, Reclamation did virtually no work on the division. They conducted some small-scale excavation in contemplation of enlarging the capacity of the main canal and placed minor structures, including checks and turnouts for supplying water to irrigators. However, too soon to seem possible, project engineers reported that timber structures already needed replacing. By 1919, demand rose for water on the Two Medicine Division, and in June, Reclamation forces began excavation for enlarging the canal system to 200 second-feet capacity which had only been constructed to 100 second-feet.²⁴

In the next four years, work forces made limited progress on the enlargement project, primarily due to lack of funding. From 1920 to 1924, the project histories typically began with the same sentence: "Due to the small appropriation for the project, construction work was confined to placing a few minor structures..." One can only speculate about the causes. Most likely, the Blackfeet Project was increasingly seen as a waste of money because it had supplied limited amounts of water either to Indians or whites. In those final years of Reclamation's tenure, project engineers also consistently complained about the rotting timber structures on the Two Medicine division and "serious silting" caused by sliding and settling along its canals. Their pleas for funding to build replacement structures and to line the canals with concrete to

^{23.} Interestingly, the *Sixteenth Annual Report* reported that Two Medicine was 73 percent completed, while the *Seventeenth Annual Report* stated that it was 34 percent completed. The *Eighteenth Annual Report* reported that the division was 44 percent finished. Whether these were typographical errors or caused by some other factor is unknown, but it could possibly reflect contemplation of enlarging the canal.

^{24.} Fourteenth Annual Report, 116; DOI, USBR, Sixteenth Annual Report, 364; DOI, USBR, Seventeenth Annual Report, 412; DOI, USBR, Eighteenth Annual Report of the Reclamation Service, 1918-1919 (Washington, D.C.: 1919), 434; "Blackfeet Project History, 1914," vol. 8, 6, 99; "Blackfeet Project History, 1916," vol. 10, 4, 56; "Blackfeet Project History, 1917," vol. 11, 1, 3; "Blackfeet Project History, 1918," vol. 12, 3-4; "Blackfeet Project History, 1919," vol. 13, 14-17; "Blackfeet Project History, 1920," vol. 14, 1-2.

prevent the silting became mere howls in an empty wilderness. Reclamation never started work on the Spring Lake portion of Two Medicine.²⁵

Badger-Fisher Division

Badger-Fisher included the Four Horns Reservoir and Dam, Blacktail Diversion Dam, and an extensive canal and lateral system. The Badger-Fisher canal system diverted water from Badger Creek to irrigate lands between Birch and Badger Creeks in the southeast portion of the reservation. Four Horns Reservoir, the main storage for Badger-Fisher, covered 1,867 acres and had a proposed capacity of 4,000 acre-feet. Four Horns Dam, an earthfill structure, had a height of sixty-three feet, a 2,225-foot long crest, and a fifty-foot spillway. The diversion dam would turn water into the main Fisher Canal. Reclamation planned to irrigate 39,500 acres via the Badger-Fisher Division.²⁶

On June 6, 1911, work by government force, primarily Indian, began on the excavation of the main canal system, and by the end of the year, they had finished almost eight miles. In 1912 and 1913, workers built the Four Horns supply canal and constructed the canal headworks. In January of 1913, Reclamation crews started the Blacktail Diversion Dam and the headgates for Fisher Canal, and by the end of the year completed the diversion dam and 23.3 miles of the Fisher Canal. Reclamation constructed the culverts under the Fisher Canal out of concrete pipe made of sand from Birch Creek. The Blacktail Diversion Dam included a headworks structure of the "division pier, curtain wall, crib and pier wing type" with three, four-foot square,

^{25. &}quot;Blackfeet Project History, 1920," vol. 14, 1, 5; "Blackfeet Project History, 1921," vol. 15, 5, 38-9.

^{26.} In the project histories and Reclamation annual reports, the main canal on the unit is alternatively called the main canal, the Badger-Fisher Canal, and the Fisher Canal. Peculiarly, the *Eighth Annual Report* stated that the Four Horns Reservoir had a capacity of 60,640 acre-feet. Most likely, this was a projection before they had actually surveyed the reservoir. *Seventh Annual Report*, 96; *Eighth Annual Report*, 90; *Tenth Annual Report*, 119; "Blackfeet Project History, 1923," vol. 17, 2.

rectangular gate openings and a height of twelve feet.²⁷

In 1914, work continued on the excavation of Fisher Canal and its larger laterals using plows and "fresnos" run by Indian workers. Structure work consisted of building concrete chute drops, concrete lateral and sublateral turnouts, concrete pipe road culverts, and wooden canal and lateral bridges for the Fisher Canal distribution system. By the end of the year, laborers had finished Fisher Canal to mile thirty, 108 miles of laterals, and the outlet works for Four Horns Reservoir. Work forces also completed a twelve-mile long supply canal at the crossing of Whitetail Creek, which diverted water from Badger Creek to Four Horns Reservoir. From that reservoir, water followed a natural channel to Blacktail Creek and then diverted into Fisher Canal to irrigate a potential 30,000 acres on the Fisher Flats in the southeast portion of the reservation. In late-1915, crews substantially finished the Four Horns supply canal and the Four Horns Reservoir, making it ready for operation to deliver water to about 15,000 of the 30,000 acres on Fisher Flats.²⁸

In 1916, Reclamation constructed a "wood-stave" siphon, sixty-two inches in diameter and 1,030 feet long, for the Four Horns supply canal, completing that portion of the division project. By July, crews also finished a chute drop on the Fisher Canal. Unfortunately after that, as the project engineer remarked, "Construction was temporarily suspended on account of scarcity of labor." Dedication to and dependence on Indian labor was a journey down the path of trial and error throughout the project.²⁹ In any case, Reclamation had substantially completed the

^{27.} Tenth Annual Report, 120; Eleventh Annual Report, 92; Twelfth Annual Report, 110; "Blackfeet Project History, 1911," vol. 5, 33, 40; "Blackfeet Project History, 1913," vol. 7, 18, 38, 42, 64-5.

^{28. &}quot;Blackfeet Project History," 1914, vol. 8, 3, 38, 46; Fourteenth Annual Report, 116; "Blackfeet Project History," vol. 9, 47; DOI, USBR, Fifteenth Annual Report of the Reclamation Service, 1915-1916 (Washington, D.C.: Government Printing Office, 1916), 549.

^{29.} See the section on Indians and labor.

Badger-Fisher division besides some smaller structures. From 1917 to 1924, work remained minimal, consisting of the construction of checks, drops, turnouts, one timber bridge, and a two-span timber bridge across Birch Creek. In 1921, the division began to experience some problems. Due to the rapid decline in elevation between Four Horns Reservoir and Blacktail Creek, the channel began to cut excessively. The cutting deposited large amounts of eroded material in the upper end of the Fisher Canal and seriously decreased its capacity. In an attempt to combat the cutting, Reclamation crews built a 2.4-mile outlet canal and two chute drops, but they never fully resolved the problems.³⁰

Piegan Division

The Piegan division, a minor undertaking, primarily involved the construction of a "small canal" diverting water direct from Badger Creek to 3,000 acres on the Piegan Flats in the south-central portion of the reservation.³¹ Reclamation forces began work on June 1, 1912, and completed the canal to a capacity of forty-five second-feet on July 20. The entire division consisted of the nine-mile long canal and seventeen miles of "V" type laterals. Project managers did not deliver water for the next two years because, as Reclamation officials noted, "no allottees under this system desired water for irrigation." In 1915, it began operation on a limited basis.³²

Birch Creek Division

The plans for the division involved a canal system diverting from Birch Creek to irrigate about 5,000 acres between Birch and Blacktail Creeks in the south-central portion of the

^{30. &}quot;Blackfeet Project History, 1916," vol. 10, 44; *Fifteenth Annual Report*, 549-51; "Blackfeet Project History, 1918," vol. 12, 4; "Blackfeet Project History, 1920," vol. 14, 1; "Blackfeet Project History, 1921," vol. 15, 1-2, 5; "Blackfeet Project History, 1923," vol. 17, 50.

^{31.} In some project histories and Reclamation annual reports, the Piegan was considered a part of the Badger-Fisher, but by the end of Reclamation's work on the project it was designated as a separate unit.

^{32.} Eleventh Annual Report, 92; Fourteenth Annual Report, 116; Fifteenth Annual Report, 549; "Blackfeet Project History, 1912," 34-5; "Blackfeet Project History, 1914," vol. 8, 6; "Blackfeet Project History, 1923," vol. 17, 1.

reservation, and south of Four Horns Reservoir. In 1910, after completing surveys, Reclamation modified the division to irrigate a proposed 3,500 acres. Officials also decided to delay construction until the completion of the Two Medicine and Badger-Fisher divisions. But in 1914, project managers recommended the commencement of work "in order to hold the water right of 1600 inches [acre-feet] that [had] been given to the Indians" from Birch Creek. The Birch Creek division almost missed its chance to become a reality. By the time Reclamation began it, funding for the Blackfeet Project had slowed to a trickle, and Birch Creek barely made it in under the wire.³³

In 1915, project managers devoted almost all work forces to the division. Prior to the construction done by Reclamation, in 1897, the Indian Service built a small canal to irrigate about 1,200 acres. Reclamation's development of the division followed the alignment of the old canal as far as it had been constructed. On June 30, 1916, crews completed the excavation of the six-mile canal and 4.5 miles of laterals. One year later, Reclamation finished the eight-mile long lateral system and placed some minor structures.³⁴ Birch Creek was virtually complete at that point to irrigate 2,600 acres, and Reclamation conducted little other work on the division.

Reclamation began operating the division in 1918. Until 1924, the only changes made were the placement of a few minor structures to increase the irrigable area to 3,000 acres.³⁵

Cut Bank North and Cut Bank South Divisions

Reclamation virtually ran out of time and money to complete any work on the Cut Bank

^{33.} Although, the project engineers stated 1,600 inches, they most likely meant 1,600 acre-feet. *Seventh Annual Report*, 96; *Tenth Annual Report*, 119; "Blackfeet Project History, 1914," vol. 8, 12; "Blackfeet Project History, 1915," vol. 9, 41.

^{34.} The sources disagree on this point. The *Sixteenth Annual Report* claimed Birch Creek had eight miles of laterals, while the "Blackfeet Project History, 1917" stated 5 miles.

^{35. &}quot;Blackfeet Project History, 1916," vol. 10, 4; "Blackfeet Project History, 1917," vol. 11, 1; *Fifteenth Annual Report*, 549-51; *Sixteenth Annual Report*, 365-6; "Blackfeet Project History, 1919," vol. 13, 2; "Blackfeet Project History, 1922," vol. 16, 3; "Blackfeet Project History," 1923, vol. 17, 1.

North and Cut Bank South divisions. In 1920, the owners of 11,000 acres of land near the town of Cut Bank, located on the eastern edge and outside of the reservation, formed the Cut Bank Irrigation District. In 1921, Reclamation transferred the Cut Bank North system to the irrigation district to be constructed as an independent project.³⁶

Indians and Labor

From the outset of the Blackfeet Project, Reclamation intended to use Indian labor and to purchase supplies from the Blackfeet as far as possible. This decision reflected both positive goals to aid the tribe, and belied some additional motivations. Using Indian labor meant jobs and income for the Blackfeet. However, reliance on Indians almost proved an Achilles heel; progress on the project rode the fluctuations of their labor, supplies, and dedication to the work. At the same time, Reclamation's devotion to the Blackfeet was not solely intended to offer them employment opportunities. Representative of views of the time period, Reclamation not only provided jobs, but attempted moral reform. The income generated from labor not only proved good for spending, but served as an agent for civilization.³⁷

Reclamation viewed labor as a practical solution to the problem of supporting the Indians. Work on the irrigation project supplemented Indians' income while "getting a start" as farmers or stockmen, and furnished employment during the part of the season when Indians were not farming or ranching. Indian labor also limited the burden on the Federal treasury and provided other intangible benefits. The Blackfeet Project manager explained, "Any money earned in this way saves the Indian Department a nearly equal amount which would be given to the Indians as rations etc.... This method of earning his living in place of having it given to him

^{36.} Virtually no other mention is made of the two divisions as to construction or completion. "Blackfeet Project History, 1920," vol. 14, 79; "Blackfeet Project History, 1921," vol. 15, 4.

^{37.} Seventh Annual Report, 98;

by the Department has a good moral and physical effect on the Indian." As the Blackfeet built irrigation works, they also built confidence.³⁸

The Blackfeet may have gotten limited benefits from the project in the way of irrigation, but they certainly received some decent income. Wages averaged between \$2.24 and \$2.40 a day for Indians and \$2.40 and \$2.56 for whites during the entire project – a fairly decent amount for those not used to bringing in a regular income. The higher rates paid whites generally reflected work that required more technical skills. In the first six years, Indians consistently earned a total income more than that of whites, but after 1914 that trend reversed. About the same time, Indians also experienced a general decline in the amount they earned per year. In 1913, they received \$78,990.95 in wages; in 1914, \$42,965; and, in 1915 Indians earned \$9,683.³⁹ After 1914, whites consistently made more money than Indians, except for the year 1917. From 1918 to 1924, incomes gradually dropped off for all labors, and fell almost to the point of non-existence by the end of Reclamations' involvement in the project.⁴⁰

Several factors contributed to the changes in wages and the quality and consistency of labor on the Blackfeet Project. From the inception of construction, the quality and eagerness of Indian labor simultaneously delighted and disappointed Reclamation officials. As one remarked, "While the teams were weak and the Indians unreliable, as is always the case with Indian labor, the amount of work done, and relations with them generally were very satisfactory." Similar to the project as a whole, in many years funds were simply not sufficient to hire as many Indians as

^{38. &}quot;Blackfeet Project History, 1914", vol. 8, 122.

^{39.} Between 1908 and 1916, Indians earned a total of \$371,396.70 for labor, and \$38,098.01 for supplies such as feed for horses, food, and other miscellaneous items.

^{40. &}quot;Blackfeet Project History, 1910," vol. 3, 66; "Blackfeet Project History, 1913," vol. 7, 83, 117; "Blackfeet Project History, 1914," vol. 8, 16; "Blackfeet Project History, 1915," vol. 9, 75; "Blackfeet Project History, 1916," vol. 10, 22; "Blackfeet Project History, 1917," vol. 11, 12

Reclamation would have liked. In those cases, project managers typically gave preference to those most "badly in need." Reclamation officials also complained about several factors that hindered Indian labor. In 1913, the project engineer issued a warning that alcohol had brought "considerable confusion" to work camps, drunkenness had increased absenteeism, and he threatened dismissal for anyone involved with consuming or providing intoxicants. Road construction in Glacier National Park and "good inducements" from the Great Northern Railway for track work also caused labor shortages throughout the term of the project. Finally, and most ironically, Indian labor proved "scarce and unreliable" when Indians quit work to tend to fall harvests and work on their farms.⁴¹

Irrigation and Crops

Reclamation first operated the Two Medicine division in 1912, the Piegan in 1913, and Badger-Fisher and Birch Creek divisions in 1916. The principal crops included hay, potatoes, alfalfa, oats and wheat. But in any given year after irrigation started, feed for livestock – grain hay, native hay, and pasture – represented the majority of crops that received water. In the first four years that Reclamation made water available, farmers did not irrigate more than 2,000 acres. By 1919, inhabitants on project land only irrigated about 6,000 acres out of the estimated 48,000 acres Reclamation could provide water for.⁴²

These figures highlighted several major trends that typified irrigation and crop production on the Blackfeet Project. In 1922, project officials verbalized what they had known for many years. Few Indians were actually irrigating any land. In general, Indians sold or rented

^{41. &}quot;Blackfeet Project History, 1910,"vol. 3, 67; "Blackfeet Project History, 1914," vol. 8, 129; "Blackfeet Project History, 1915," vol. 9, 75; "Blackfeet Project History, 1916," vol. 10, 41; "Blackfeet Project History, 1923," vol. 17, 41.

^{42. &}quot;Blackfeet Project History, 1923," vol. 17, 3; "Blackfeet Project History, 1914," vol. 8, 99; "Blackfeet Project History, 1916," vol. 10, 5, 54; *Eighteenth Annual Report*, 436-7.

most of their land to white farmers and ranchers. Of the 9,937 acres that received water in 1920, only 10 percent went to Indian lands. From 1917 to 1921, the amount of land irrigated increased from 2,448 to 14,650 acres, but in 1922 dropped to 8,652 acres. In 1923, water users irrigated a mere 1,873 acres, including only 186 acres by Indians. This limited use by the Blackfeet characterized the entire duration of the project. As a project manager put it, "It now seems that scarcely any of the project land will be used by the Indians for establishing homes as was the intention when the project was undertaken." The Blackfeet simply did not want to be farmers. However, the project certainly played a part in encouraging Indians to raise cattle. Thus, the Blackfeet that used water primarily irrigated hay and pasture to feed livestock, but many simply turned their cattle onto land not under irrigation. Finally, while white inhabitants used a considerable amount of water, Reclamation officials opined that their "poor farming methods" and "careless" use of flooding to irrigate often meant limited crop results and the waste of water. In spite of these problems, Reclamation officials concluded that the project benefitted both Indians and whites, and that it only needed more "good farmers" to further prove its worth. 43

Summing up Reclamation Work

Reclamation's work on the Blackfeet Project included a number of complex and difficult challenges. In many respects, the problems with the project resulted from factors outside its control. Funding was quite likely the most significant determinant in the outcome of Reclamation's involvement. In almost every year after 1916, the project received a mere pittance and much of the funding went mainly for the upkeep of the project. In 1923, project managers estimated that the area that could possibly be irrigated totaled over 48,000 acres.

^{43.} DOI, USBR, *Twenty-Second Annual Report of the Reclamation Service, 1922-1923* (Washington, D.C.: GPO, 1923), 143; "Blackfeet Project History, 1923," vol. 17, 13, 78, 80; "Blackfeet Project History, 1920," vol. 14, 50; "Blackfeet Project History, 1922," vol. 16, 10, 57; "Blackfeet Project History, 1921," vol. 15, 34.

Unfortunately, because of a lack of funding to finish minor structures and some of the distribution systems, the project could only legitimately supply water to about 21,000 acres.⁴⁴ At the end of Reclamation's tenure in 1923, the bill for construction of the project amounted to \$1.088 million and operation and maintenance costs reached \$178,000. The project engineer concluded that "to insure the investment already made and to promote the development of the reservation...the systems already commenced should be completed at the earliest possible date," but Reclamation would not get the chance. That task fell to the Indian Service. ⁴⁵

Post-Construction History

Construction By Indian Service and Completion

In the spring of 1924, Secretary of the Interior Hubert Work transferred responsibility for the Blackfeet Project to the Indian Service. Even though Indian Service officials deemed the prospects for the project disappointing, they resolved to do everything possible to "induce the Indians to cultivate their lands." They promised the Secretary that they would spend considerable effort on the Blackfeet Project "with a view to reaping practical returns from the investments involved." By the end of the decade, the Indian Service fully realized the difficulties Reclamation had dealt with. In 1929, out of the approximately 7,149 acres "susceptible of irrigation," Indians irrigated only forty-four acres, or 0.6 percent. One year later, the Indian Service reported a "reviving interest" in irrigation. In 1931, officials concluded new construction would not be required under then present conditions. This fluctuating attitude

^{44.} Two Medicine: 7,000 acres; Piegan: 2,300 acres; Badger-Fisher: 9,000 acres; and, Birch Creek: 2,600 acres.

^{45. &}quot;Blackfeet Project History, 1917," vol. 11, 1; "Blackfeet Project History, 1922," vol. 16, 5; "Blackfeet Project History, 1923," vol. 17, 19, 73, 99, Appendix-1.

characterized the Blackfeet project for the next twenty-plus years.⁴⁶

According to a Bureau of Indian Affairs' report, the Indian Service applied "many schemes and plans" to revive and stabilize the project, but in 1933 the situation "appeared so hopeless" that the bureau discontinued the project until the end of the decade. Between 1939 and the mid-1950s, the Indian Service did not attempt any new construction, but concentrated on the operation and maintenance of the project. In 1954, the Bureau of Indian Affairs reaffirmed the feasibility of finishing the partially completed Two Medicine, Badger-Fisher, Birch Creek, and Piegan Units. The Bureau proceeded to enlarge the main canal and distribution system on the Two Medicine to deliver a "firm water supply" to 21,500 acres, an increase of over 10,000 acres. The BIA did little other work until the 1960s.⁴⁷

On June 8, 1964, a flood caused the Two Medicine Dam to fail, and in the next three years Reclamation constructed the new Lower Two Medicine Dam, 800 feet downstream from the old dam, for the BIA. The dam is a zoned earthfill embankment with a crest elevation of 4,898 feet and a crest width of twenty-five feet. The spillway includes a concrete apron extending upstream fifty feet, an ungated overflow weir section, and a concrete stilling basin. The weir crest has a length of 185 feet and sits at an elevation of 4,882 feet. The stilling basin extends 74 feet downstream and the spillway has a discharge capacity of 20,600 cfs. The concrete outlet works, consisting of two conduits, has a discharge capacity of 740 cfs. In the 1990s, BIA evaluations of the dam rated it as a high hazard facility because of a lack of

^{46.} Report of the Commissioner of Indian Affairs, 1924 (Washington, D.C.: GPO, 1924), 18-19; DOI, Report of the Secretary of the Interior, 1929 (Washington, D.C.: GPO, 1929), 12; Report of the Commissioner of Indian Affairs, 1930 (Washington, D.C.: GPO, 1930), 24; Report of the Commissioner of Indian Affairs, 1931 (Washington, D.C.: GPO, 1931), 20.

^{47. &}quot;A Report On Plans and Estimates for the Completion of the Blackfeet Irrigation Project," ii, iv, 1; *Annual Report of the Secretary of the Interior, 1954* (Washington, D.C.: GPO, 1954), 252; *Annual Report of the Secretary of the Interior, 1955* (Washington, D.C.: GPO, 1955), 252.

emergency preparedness and the threat to human life in the case of failure. As a result, BIA has implemented rehabilitation and improvement procedures.⁴⁸

Settlement of Project Lands

At its inception, the lands of the Blackfeet Project consisted of 111,500 acres within the reservation and 11,000 acres outside the reservation near the town of Cut Bank. The land outside the reservation had been fully homesteaded, while inside the reservation the Federal Government had allotted 50,000 acres to Indians and 61,500 acres of public land remained to be opened for settlement. In the ensuing years, many members of the tribe chose to live on their grazing allotments and proceeded to rent out the irrigable lands to white farmers and ranchers. According to the project histories, most of these renters' merely attempted to get as much as they could from the land and "did not have the best interests of the project at heart." By 1920, an increasing number of white settlers had settled on project lands and established water users' associations. Yet officials continued to complain that one of the things that the project need most was good farmers who wished to establish homes on the land.⁴⁹

At the end of Reclamation's tenure, project lands included 2,900 farms, with approximately 500 of those irrigated.⁵⁰ Whites rented or owned and operated a substantial amount of the irrigated lands, but the majority of the land on the entire project remained in Indian hands. The status of much of the rented tracts remained in flux, constantly changing hands from year to year. Unfortunately, poor crop yields in the 1920s contributed to a growing

^{48.} DOI, USBR and BIA, "1999 Intermediate Seed Examination Report, Lower Two Medicine Dam, Blackfeet Indian Reservation, Montana" (Denver, Colorado, April 2000), 1-2; "1992 Seed Report On Lower Two Medicine Dam, Blackfeet Agency, Montana," A-1.

^{49. &}quot;Blackfeet Project History, 1914," vol. 8, 108; "Blackfeet Project History, 1916," vol. 10, 56-8; "Blackfeet Project History, 1920," vol. 14, 7, 79; "Blackfeet Project History, 1922," vol. 16, 10;

Nailing down the number of settled and irrigated farms is a complex undertaking due to the high number of rentals, and the continuing shifts in ownership. Number of irrigated farms: 1919–329; 1920–351; 1921–497; 1922–322; 1923–500 (approximate).

number of delinquent water and land rental contracts.⁵¹

Conclusion

Undoubtedly, the Blackfeet Project provided a clear example of misguided intentions and misdirected goals intended to aid the Indians. Many of the tribal members simply had more interest in the livestock industry than in agriculture. Thus, in an indirect manner, the project created some beneficial results. The water that primarily went to irrigate the farms and ranches of white inhabitants meant more feed for Indian-owned cattle, while some tribal members irrigated their hay and other pasture lands. The slow pace of settlement and the practice of renting also meant that much of the reservation land remained in Indian hands. For a short span, the Blackfeet received substantial income that would have been otherwise unavailable. Perhaps it is best to think of the Blackfeet Project as a joint endeavor rather than as an Indian project. Setting aside the difficulties and conflicts representative of Indian-white relations, and Indian irrigation projects in general, the culturally-mixed inhabitants of the Blackfeet Reservation both profited and suffered losses from the efforts of Reclamation to bring water to an arid and isolated region of the West.⁵²

About the Author

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^{51. &}quot;Blackfeet Project History, 1923," vol. 17, 89-92, Appendix-1; *Twentieth Annual Report*, 142-3; *Twenty-First Annual Report*, 135-6; McDonnell, 67.

^{52. &}quot;Blackfeet Project History, 1923," vol. 17, 13; "A Report On Plans and Estimates for the Completion of the Blackfeet Irrigation Project," iv-v.

All project histories reside in the Records of the Bureau of Reclamation, Record Group 115, and all BIA records reside in the Records of the Bureau of Indian Affairs, Record Group 75, at the National Archives and Records Administration – Rocky Mountain Region (Denver, Colorado). After the first citation, all subsequent references to Reclamation histories will be referred to by title and year only, and BIA sources will be denoted by title only.

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