



A Publication of the East Texas Historical Association

Volume 53 Issue 2

Article 6

2015

A Defiant River, a Technocratic Ideal: Big Dams and Even Bigger Hopes along the Brazos River, 1929 - 1958

Kenna Lang Archer

The East Texas Historical Journal is a publication of the East Texas Historical Association (ETHA). The ETHA is a membership organization founded in 1962 to support research into the unique histories of East Texas and to educate and engage others in the effort.

More information about the ETHA is available at www.easttexashistorical.org

Follow this and additional works at: https://scholarworks.sfasu.edu/ethj

Part of the United States History Commons Tell us how this article helped you.

Provide feedback to ETHA.

Recommended Citation

Archer, Kenna Lang (2015) "A Defiant River, a Technocratic Ideal: Big Dams and Even Bigger Hopes along the Brazos River, 1929 - 1958," *East Texas Historical Journal*: Vol. 53: Iss. 2, Article 6. Available at: https://scholarworks.sfasu.edu/ethj/vol53/iss2/6

This Article has been accepted for inclusion in the East Texas Historical Journal by an authorized editor of ETHA and SFA. This Article is brought to you free and open access by the Journals at SFA ScholarWorks. For more information, please contact cdsscholarworks@sfasu.edu.

A Defiant River, a Technocratic Ideal: Big Dams and Even Bigger Hopes along the Brazos River, 1929 – 1958

BY KENNA LANG ARCHER

With turbines groaning and blades wheeling, Hoover Dam came to life. Then-President Franklin Delano Roosevelt oversaw the structure's dedication in September of 1935, and by October of the following year, the hydroelectric capabilities of Hoover Dam had generated power that lit the infrastructure of Los Angeles and the imaginations of Los Angelenos. It would have been no exaggeration to insist that a new era had begun along this nation's rivers, one borne explicitly of engineering expertise and technological achievement. Hoover Dam was not the first large-scale dam to be built in the United States. Nor was it the first dam to be built in this nation using either the arch or the gravity structure, designs that now characterize most oversized dams in the United States. However, this mass of concrete and steel was the tallest dam in the world upon its completion and one of the first truly multi-purpose structures to dot the western half of the United States so it quickly came to symbolize the promise and the potential of technological intervention in the western states.

Hoover Dam effectively became a vehicle by which Americans could gaze forward, anticipating the ways in which irrigation, reclamation, and electricity might change the water resources (and, thus, the land usage) in states such as California, Arizona, Utah, and Nevada. The construction of Hoover Dam and the creation of Lake Mead, however, also extended a subtle hand to the past. More specifically, these structures echoed an enduring faith in technology.

The technocratic conviction that was revealed in a very palpable

Kenna Lang Archer is an instructor in the Department of History at Angelo State University.

way with the completion of Hoover Dam had already constituted a central feature of the American character for more than a century, shaping the nations economic and social frameworks and also creating an ideological structure onto which such ideas as imperialism and manifest destiny would be built.

During the first Industrial Revolution, manufacturing and scientific innovations began (gradually but surely) to commoditize the natural world, to privilege machine power, and to exclude muscle power in ways that diverged noticeably and enduringly from the proto-industrial innovations of decades past. As the 1800s progressed and ultimately folded over into a new century, faith in technology the belief that scientific knowledge and industrial forces could address practical concerns and issues of efficiency - grew apace. By the time that F.D.R. consecrated Hoover Dam in 1935, the idea that scientific advancement could resolve issues of aridity, canalization, and flood control as well as questions of public health and industrial production had become well established. Indeed, the average American, as they read excerpts from the Boulder dedication or braved the stifling heat to witness the moment in person, likely would have agreed both with Roosevelt's contention that this was "the greatest dam in the world" and with his assertion that completion of Hoover Dam marked "an engineering victory of the first order-another great achievement of American resourcefulness, American skill and determination."1

Like Roosevelt himself, many Americans put an astounding amount of faith in engineers, scientists, and other technical experts, elevating these purveyors of modernity to progressively more prominent positions within the federal government. This faith in technology shaped projects as geographically and chronologically dispersed as the construction of New York's Erie Canal during the early republic, the creation of a regional water system in arid Southern California during the late-nineteenth and early-twentieth centuries, the erection of multiple dams by the Tennessee Valley Authority during the interwar and post-war years, and even the transnational diversion projects of the 1970s. The expectations that Americans attached to their requests for improvement or change or resolution were not always realized, but there was no denying the general optimism with which the American public crafted a narrative of technical progress.

Indeed, there is something rather remarkable about the commitment of Americans to scientific expertise and the faith that

Americans place in scientific and industrial solutions. Americans have constructed dams, canals, mines, and even towns with government assistance, enabling legislation, and a sheer determination to mold the land to their designs, but such moments of technological success reveal but part of the narrative. Despite its importance to the broader American character, that narrative of progress accepted by many scholars is incomplete. The need for a more nuanced idea of development is especially clear in the study of this nation's rivers. The men and women who advocated improvement of America's waterways erected lock-and-dam structures and then watched rivers shift course, built dams and then watched floodwaters course over the concrete rims of those titanic structures, constructed levees and then looked on as unstable soils collapsed beneath the burden of expectation as well as the physical weight of the improvements themselves.

It is true that the Colorado and Columbia Rivers, dammed extensively, now generate water for reclamation, space for recreation, and power for personal and commercial use. It is likewise correct that navigation has been realized along the Mississippi and Arkansas Rivers through the construction of locks and levees and that rivers from the southeast to the northwest have electrified rural households, urban centers, and political careers. However, developers have also struggled to transform the natural world and, more to the point, to control the pathways of this nation's waterways. These incomplete efforts to capitalize on America's water resources suggest that failure has played an uncomfortably significant role in the story of American progress and prompt a re-evaluation of long-accepted ideals of technocracy and progress. This paper highlights that imperfect technocracy, granting abandoned blueprints and ineffective dams a greater space in the narrative of riparian development along Texas' longest in-state river, the Brazos River.

The Brazos has not shaped empires outside of the shortlived Republic of Texas or even carved a space within the national imagination, and it flows through a state that defies easy categorization as either west or south. However, improvement of the Brazos River and its adjoining watershed has been especially difficult; its refusal to be harnessed is acutely evident and the determination of its boosters, long-lived and at times on display in near bombastic glory. These developmental difficulties are most clearly revealed during the era of dam building. To put it simply: a study of Brazos River dams highlights

a more nuanced process of development than might be suggested by the cultural might of Hoover Dam or the study of rivers that have been more extensively made over. The story of dam building along the Brazos River between 1929 and 1958 unveils the importance of technocratic faith to the national narrative of development but also complicates that long-held belief in technology and progress by accentuating what might be called the reality of developmental interruption.

The story of big dams along the Brazos River actually begins with a completely different vision for the watershed. Although improvement of the Brazos River in the years under discussion fit snugly within the model of federal funding, dam-construction, and power-generation that was laid out in western-lying states during the early- and mid-twentieth century, development in the watershed did not always prioritize flood control or reclamation. Instead, lawmakers, boosters, and engineers had emphasized navigation and the growth of an agricultural economy in the years before 1929 (figure 1). As early as the 1830s and continuing into the 1910s, boosters worked to construct a canal that might connect the Brazos with the shipping infrastructure of Galveston Bay. That same period saw work on a port at the mouth of the river. By the start of the 1890s, developers had turned to more ambitious projects to secure navigation on the river. Engineers proposed a series of lock-and-dam structures between the cities of Waco and Washington that would, in their minds, allow for extended navigation of the river and the expansion of an agricultural market. Various organizations also undertook dredging operations and the construction of jetties during this time.

By the 1920s, the individuals who lived within or otherwise engaged life within the Brazos watershed had begun to develop a new vision for the river, one that prioritized flood control and a consistent stream-flow over navigation. The shift in focus away from these earlier riparian models reflected ongoing changes to both the local and the national landscape of development. On one hand, local frustrations with floods and droughts began to swell during the first two decades of the twentieth century, ultimately bursting forth in op-ed pieces and congressional bills that called for flood control and reclamation rather than navigation and agricultural economies. This budding interest in flood control spoke to a continuing problem with overflow events. Despite prior attempts at development, newspapers still spoke of "fatal cloudbursts;" witnesses still lamented "scenes of woe and misery;" and, streets continued to transform into rivers.² That little permanent change had been realized with the navigation projects only justified further the transition to a new developmental focus.

On the other hand, the flow of federal monies into western development projects provided frustrated Brazos dwellers with a vision for improvement that matched their perceived needs and engaged their emerging expectations. The adoption of the 1902 Reclamation Act, the creation of an independent Bureau of Reclamation in 1907, and the Depression-Era decision to use public works projects as a form of unemployment relief elevated riparian development to a position of greater importance within the federal budget. For people living within the western states, a solution to the long-standing problem of aridity seemed finally to have emerged. Although the era of big dams would come together only gradually during the difficult years of the Great Depression and the Second World War, the era of large-scale riparian projects had informally begun and would ultimately culminate in the 1950s in what Marc Reisner famously called the "Go-Go Years" of dam-building.³

Acting on some combination of resignation and genuine anticipation, developers surrendered their hopes for navigation on the Brazos River in exchange for a more attainable dream. The river traffic that Brazos dwellers had sought to encourage in prior decades was all but forgotten as flood-control surpassed navigation as the pressing issue. In fact, lawmakers and laypeople began to view navigation as, at best, an unattainable ideal and, more likely, as a distraction and an irresponsible use of funds. Congressman O.H. Cross of the 11th District in Texas made the point clearly when he testified before the Committee on Flood Control in the House of Representatives during a 1935 hearing: "We do not expect to have this stream navigable ... I do not think it is feasible for navigation. We do not expect anything like that."⁴ The *Fort Worth Star Telegram*, in a memorable article from 1951, claimed that ""Not even a rowboat' could navigate the Brazos River in Texas 250 miles from the Gulf of Mexico."⁵

That desire to move beyond the issue of navigation and to shoulder instead the banner of flood control became institutionalized in 1929, when Texas lawmakers agreed to form the Brazos River Conservation and Reclamation District. According to a pamphlet published in 1936, the Texas Legislature unambiguously created this agency "to control flood waters on the Brazos River."⁶ An undated application for Public

Works Administration funds confirmed that emphasis, stressing the District's desire to alleviate the damage caused by "recurrent, devastating floods in the valley of the Brazos River."⁷ The Reclamation District, renamed the Brazos River Authority in 1953, marked a turning point in the way that policymakers approached river development. The State of Texas created this extra-governmental agency to coordinate development of the largest in-state river; never before had a public agency been given oversight over the entirety of a major river basin.⁸

The politicians who dealt with the political debris that resulted from Brazos outbursts, men such as W.R. Poage and George Mahon, knew that floods were a pressing problem within the basin. They also understood that many rivers in this nation undergo fluctuations in their streamflow. It was not enough for Brazos boosters to ask for federal monies to be spent on improvement; instead, the men and women involved in Brazos River development needed to demonstrate the urgency and the legitimacy of their requests for funding. To that end, the Brazos River Conservation and Reclamation District and the House of Representatives Committee on Flood Control sought testimony from local residents for a 1935 hearing on the need for flood control structures. A Mr. Buchanan provided a particularly distressing look into the devastating nature of these frequent flood events:

... I myself and two or three others were staying on top of the house, and had to stay there 5 or 6 days, because the ferryboat was leaking. We would take turn about bailing the ferryboat out night and day to keep it from sinking and losing those mules. Every now and then a house would rise up and go off down the river. Houses floated by with chickens on them eating bugs. They did not know where they were going; they were on their way, and they went.⁹

In an effort to further illustrate his feelings about that 1921 flood, Buchanan penned a poem that suggested he, at least, had found a solution to the Brazos perils: "Farewell to the Brazos bottoms, I bid you a long adieu. I may migrate to hell some day, But I'll never return to you."¹⁰ Mr. Buchanan was but one individual to provide testimony, and congressional representatives ultimately found meaning in the sheer volume of letters sent in by sheriffs, farmers, mayors, and housewives.¹¹ These witnesses may have exaggerated the frequency or severity of flood events, but overflows did visit the Brazos basin on a near yearly basis so there was some truth to a reputation in which wastefulness and disorder ruled over productivity and restraint.

It was no surprise to these Brazos dwellers that newspapers of the 1930s balanced their descriptions of the "monstrous flood hazard of this stream" and a "rain-gorged Brazos River" with pieces suggesting that dams would limit loss of life and property.¹² It had even become commonplace during the 1930s for newspapers to speculate, in the days following flood events, on what damage could have been prevented by the presence of a dam structure. However, people living in the watershed had come to believe by this point that only a series of dams would address the "urgent necessity" of flood control.¹³ "The butcher, the baker, the candle-stick maker – yes, everyone in Bell County is interested in the Brazos River dam project" – in the opinion of John Clarkson (and, presumably, many others), only a succession of dams could hold back the waters that periodically surged forth from the banks of the Brazos River.¹⁴

Whatever the validity of these perspectives, they set in a motion a series of dam projects along the Brazos. These projects would not pacify the river, but they would bring to light the centrality of a damcentric model of development in Texas and the difficulty of applying that model to the Brazos watershed. Specifically, the Brazos River Conservation and Reclamation District, in conjunction with the State Board of Water Engineers and the Ambursen Engineering Corporation, drafted what came to be known as the Brazos River Project in 1936. The Brazos River Project, which advocated the construction of thirteen dams, constituted the Brazos River Authority's first Master Plan for the river and the first coordinated dam project for the Brazos basin. The plan tentatively sited thirteen large-scale dams at the following locations: Breckenridge Dam (Clear Fork), Seymour Dam (Salt Fork), Possum Kingdom Dam (Brazos River), Turkey Creek Dam (Brazos River), Inspiration Point Dam (Brazos River), de Cordova Bend Dam (Brazos River), Bee Mountain Dam (Brazos River), Whitney Dam (Bosque River), Lampasas Dam (Lampasas River), Leon Dam (Leon River), San Gabriel Dam 1 (San Gabriel River), San Gabriel Dam 2 (San Gabriel River), and Navasota Dam (Navasota River).15

The House Committee estimated that the project would cost \$35 million for the construction of these major dams and an additional \$15 million for the construction of what they called "minor dams."¹⁶ Given the rather substantial price tag for this project, flood control alone could not justify extensive expenditures on the Brazos, not in light of the failed projects of earlier eras. An application for Public

Works Administration funds confirmed as much, admitting that "If it can be said that the District has a primary objective, that objective is flood control" but also conceding that "flood control dams cannot be self-liquidating and for that reason dams and reservoirs designed exclusively for flood control are not contained in this application."¹⁷ As a result, while the project centered on flood control, the purposes of the Brazos Project were four-fold: (1) flood control, (2) water conservation for irrigation, industrial, and municipal purposes, (3) soil conservation and reclamation, and (4) hydro-electric power production.

The era of big dams commenced along the Brazos River with the construction of Possum Kingdom Dam – authorized in 1935, begun in 1938, and completed in 1941. This project was funded by the Emergency Relief Appropriation Act and constructed by the Brazos River Conservation and Reclamation District.¹⁸ Works Progress Administration funds could have been used on any of the thirteen dams, but the Brazos River Conservation and Reclamation District (in conjunction with the civic leaders from several Brazos River counties) decided that a dam at this location would contribute to flood control and drought alleviation in greater and more lasting ways than at any other Brazos site. The area chosen for the dam also lent itself to a large-scale structure, something that could not be said along much of the Brazos River. The site for Possum Kingdom Dam, for example, incorporated limestone cliffs that facilitated the erection of abutments for a dam structure.¹⁹

After completing Possum Kingdom Dam, developers began work on Whitney Dam. Although engineers and developers believed that Possum Kingdom Dam would provide the greatest amount of flood control for the Brazos River basin, they argued that Whitney Dam would also play a crucial role in flood control efforts along the river.²⁰ Specifically, developers believed that the Whitney Dam could eliminate increased stream-flow and, consequently, floods along the Middle Brazos River in the same way that Possum Kingdom could eliminate these flows upstream. With these words of faith and hope in mind, popular support grew quickly for this second Brazos Dam.²¹ Representatives from the Chambers of Commerce for the cities of Cleburne, Meridian, Waco, Whitney, and Hillsboro even planned a celebration "to be held when the first dirt is broken on the Brazos River dam project at Whitney."²²

Mapping work commenced for the site as early as 1937. However,

construction did not begin until 1947, and the dam itself was not completed until 1951, delayed by on-going war and by the allocation of funds to that cause. The cost of the dam was initially estimated at \$8.5 million in 1939. Depending on the source, the final cost increased to somewhere between \$30 million and \$42 million by the late 1940s. Whatever the actual tally, these numbers outpaced the initial figures estimated for individual Brazos dams. In addition to Whitney Dam, proponents of the thirteen-dam project also succeeded in building a small dam on the Leon River. Engineers and Corps officials completed the surveys and mapping for the Leon River damsite in 1937, and after beginning work in 1949, the Army Corps of Engineers completed construction of what came to be called Lake Belton Reservoir in 1954 at an estimated cost of \$17 million.

Despite the early successes of the Brazos River Project, completion of the remaining dams proved difficult. Developers struggled to overcome a slew of geological, political, and economic crises, but problems with the Brazos Project did not halt dam-building momentum along this river. When the thirteen-dam project stalled in the 1950s, lawmakers and developers drafted a new project for the Brazos River, a six-dam project that centered on the Brazos River tributaries.²³ This dam plan revolved around a flood control proposal drawn up not by the Brazos River Authority but by the Army Corps of Engineers. At the start of the 1950s, the Secretary of the Army recommended that six flood control dams be built on the tributaries of the river. The Public Works Sub-Committee in the House of Representatives authorized \$40 million for the project with a total estimated cost of between \$92 million to \$158 million. Even for one of the longest rivers in one of the largest states, that represented a sizeable expenditure.

This six-dam project proposed dams on the Bosque River in McLennan County (an expansion of Lake Waco), the Leon River in Comanche County, the Lampasas River in Bell County, the San Gabriel River in Williamson County, the Navasota River in Brazos County, and on Yegua Creek in Burleson County.²⁴ The Corps of Engineers succeeded in building several of the proposed structures, but the process of funding and constructing these dams extended through four decades. For example, the Corps completed mapping and fieldwork by 1940 for most of these locations but would not complete Stillhouse Hollow Lake on the Lampasas River until 1968. They completed the Granger Lake Dam on the San Gabriel River in 1980.²⁵

Vol. 53

The Brazos River Conservation and Reclamation District proposed yet another six-dam project during the 1950s, a project which both complemented and competed with the thirteen-dam project and sixdam project discussed above.²⁶ Proponents of improvement would have recognized the dams in this project: these dams, staggered along the main-stem of the river, were originally included in the larger thirteendam project. However, developers and engineers proposed these dams not for flood control but for hydroelectric power generation. The Brazos River Authority, in fact, considered these dams "to be valuable primarily for power" and to possess only "incidental flood control storage benefits."²⁷

Proponents of development immediately weighed in on this newest manifestation of a century-old quest for riparian control. The Reclamation District, by now known as the Brazos River Authority, and its legislative backers hoped that power generation at these dams could fund the full cost of construction.²⁸ Developers and boosters hoped that this variation of the multi-dam project would trap the "wasted water" that continued to flow through the river's banks by building a "250-mile chain of lakes that will make the river, in effect, one great lake from Whitney Reservoir upstream to Possum Kingdom Reservoir."²⁹ The luckless inhabitants of the often-flooded towns along the Brazos River simply hoped for some relief from the problems of water feast and famine.

This project proposed the enlargement of Possum Kingdom and the construction of reservoirs at Hightower, Bee Mountain, Inspiration Point, de Cordova Bend, and Turkey Creek; its cost was estimated somewhere around \$181 million. Despite the fact that the Authority hoped to finance part of the cost through the sale of power, developers and engineers only succeeded in building one of the six-dams: de Cordova Bend Dam, an earth-filled structure near Granbury, Texas. Even at the de Cordova Bend Dam (which impounded Lake Granbury), the building process never proceeded smoothly. Authorities completed the surveys and mapping work in 1937, attempted to begin construction in 1951, stalled, received a state permit in 1966 to formally begin construction, and completed the dam in 1969.³⁰

As would later be the case at Sterling C. Robertson Dam on the Navasota River, the Authority used monies earned from the sale of power to fund the construction of de Cordova Bend dam. Whether the model could have been successfully incorporated into the construction of the remaining dams was debatable, but it hardly mattered. Opposition to the Authority's six-dam program mounted quickly. Engineers reported as early as 1956, for example, that the costs of the project clearly outweighed its benefits.³¹ However, economics did not undermine the six-dam project. Although a handful of individuals believed that a "holiday land" would grow up around these dams, most Brazos dwellers simply did not support a project that so strictly prioritized power generation.³² Some water users preferred the focus on power but thought that the power generated at these dams would actually cost more to produce than it would ultimately be worth on the market. There seemed to be little reason to support the expenditure of tens of millions of dollars on these dams if they would not, in fact, lower costs for the individuals who purchased power through Brazos utilities.

Many individuals opposed the emphasis on power generation outright. On one hand, flood control continued to be a fixation for many people living along and working with the Brazos, despite the official interest in power generation. This was especially true along the Middle Brazos River, where the original dam project had been proposed. In a world where floods wrought havoc on Brazos lands with some regularity, opponents argued that the six-dam project focused too little on flood control.³³ A sizeable number of Brazos dwellers prioritized flood control over power production, an issue that shaped their daily lives in less damaging and dramatic ways, and they preferred projects that adopted the same emphasis. Glossy pamphlets and thoughtfully worded releases, in other words, could not sway the average Brazos dweller into adopting, wholesale, this new representation of a developed river.

On the other hand, many people living along the Lower Brazos River feared that they would see a decline in the quality and the quantity of their water if the Authority succeeded in building these dams along the upper reaches of the river. The Lower Brazos River Water Users Committee, for example, published a pamphlet in which they declared that they supported the six-dam project of the Army Corps of Engineers over that of the Brazos River Authority Project because they believed that it offered more equitable use of the river's resources.³⁴ Residents from Cameron, Texas, likewise, wrote to Senator Poage in 1956 to comment on equitable use of Brazos water, declaring that "It

was rather irksome to us in Cameron to know that people on the Gulf by the mere giving of notice could have water released for industrial purposes when we had so much difficulty securing a release of a very small amount of water for municipal purposes.²³⁵

In the face of mounting opposition, the Brazos River Authority published a circular in 1957, titled "Let's Build Dams!"36 The circular addressed a variety of issues, speaking to the concerns of people whose homes would be flooded by the creation of a new reservoir, people who might see a decline in their water quality due to sedimentation in the river, and people concerned with an increase in electric rates due to privatization of power. This last question proved to be particularly important. Questions over the sale of power had plagued Brazos development as early as 1936, when some Texans became concerned that the proposed construction of Possum Kingdom as a hydroelectric dam would do nothing to lower electricity rates in Texas.³⁷ Such concerns spoke to unease over strict financial calculations, a more general distrust of government involvement in public utilities, and a combination of the two preceding fears. However, concerns over power became more problematic with this six-dam dam scheme because it seemed to sacrifice flood control entirely for electric rates still deemed too high.

In addition to the projects discussed above, the Brazos River Authority proposed a five-dam project that targeted the Upper Brazos. Focusing almost exclusively on the formative tributaries of the river, the Authority began discussing these dams during the 1940s but did not formulate a cohesive plan for this collection of dams until the 1950s. The dams proposed as part of the five-dam project included: South Bend (Brazos River), Breckenridge (Clear Fork), Nugent (Clear Fork), and the twin Seymour Dams (Salt Fork and Double Mountain Fork). As with the other dam projects, this development scheme included dams that were initially considered as part of other projects. The Authority hoped that these dams would, like their hypothetical predecessors, prevent the "waste' of flood waters" by controlling the flow of the Brazos River and maximizing effective use of the river's waters.³⁸ Small, municipal dams had been constructed in the region previously, but they only fleetingly resembled the dams that had been envisioned by these mid-century boosters of large-scale projects (figure 2).

Because the region highlighted by this project experienced more

famine than feast in terms of water levels, developers intended that the dams would prioritize reclamation. Local and regional populations along the Upper Brazos River arguably feared a water shortage above almost any other form of riparian problem because it was the most frequent visitor of destruction. The Mayor of Stamford, Texas, perhaps phrased it best when he noted that "We've grappled for six years now with a serious water situation. It has been alarming at just how close we were to the edge."³⁹ The dams also intended to address the problems with salinity in the region, as many people living in this section of the watershed believed that only the Double Mountain Fork was potable. In the words of the *Abilene Reporter-News*, "the two 'Seymour' dams are needed to separate the 'bad' water of the Salt Fork from the 'good' water of the Double Mountain Fork."⁴⁰

Despite a good deal of support for the project, especially in the northern and western counties of Texas, the plan never gained much traction. Ranchers in particular opposed several of these dams, notably the Breckenridge Dam.⁴¹ The reservoir, if constructed, would have covered roughly 15,500 acres of prime ranch land in an area early settled by pioneering, ranching Texas families. The Matthews Family, who owned much of the land that would have been inundated by the dam, expressed the sentiments of many when it published a statement noting, "We will not fight a new lake, if they really want to build one on the Clear Fork ... but we will certainly fight one at this site."⁴² Such displacement was a common consequence to dam building, but it was still an undesirable prospect for the families who would have fallen victim to permanently heightened waters and felt, justly or not, that they lacked a regional voice.

Complementing these series of dam projects was a proposal for an independent dam on the Upper Brazos River in the 1940s. Although little is known about this project, contemporary newspaper articles referenced a reservoir to be sited on the Double Mountain Fork, the Bob Baskin Dam. This project, which would have involved the Bureau of Reclamation in the process of Brazos River dam building, proposed "a dam on the Double Mountain Fork that would serve, among other purposes, the function of recharging irrigation wells in the Haskell County area."⁴³ Proponents of this dam, like the proponents of the Authority's Upper Brazos River plan, emphasized different ideals than the individuals living in the water-rich, flood-prone areas of the Lower and Middle Brazos River. Flood control factored into the equation

Vol. 53

only tangentially. These dams sought instead to secure a water supply for municipal and agricultural uses.⁴⁴

The Bureau never built this dam, never even moved into the construction process. As with dams along other stretches of the river, economics and hydrology undermined the hopes of Bob Baskin developers. Engineers estimated that construction of the dam and reservoir site would have cost \$25.5 million. Given concerns over evaporation from the reservoir and the potability of the water, the cost for the large reservoir could simply not be justified, particularly when the structure would almost exclusively aid irrigation interests over municipalities. Whether or not the individuals opposed to the Bob Baskin Dam acted with a bias towards urban centers is unclear. What is clear is that economic considerations played an important role in shaping the future of this project. Benefits for irrigation alone were not sufficient to justify the increasing costs of dam building.

Finally, in addition to a thirteen-dam project, a six-dam project, a second six-dam project, a five-dam project, and a single-dam project, a handful of boosters began talking during the 1950s and 1960s about a 23-dam project for the Brazos River.⁴⁵ Boosters proposed this especially enormous dam project as part of a comprehensive state water project that included other reclamation proposals. Few newspapers or letters mentioned the largest of projects; they did not even publish a list of the dams. Yet, proponents of the project very clearly insisted that they hoped to provide benefits "for all the people" and to integrate these many structures into an "over-all pattern for fullest development of the river's potential."⁴⁶

As evidenced by the long list of would-be dams, developers struggled to corral the waters of the Brazos River. The people of this watershed – men and women, lawmakers and laypeople – sincerely believed that their thirteen-dam plan would succeed despite the problems with money and geology and politics, and they believed, likewise, that the six-dam plans of the Brazos River Authority and the Army Corps of Engineers would manipulate the waters of this river to the desired ends of the Brazos populace. As a result of such confidence, proponents of development could, and indeed did, argue that a multi-dam project would ultimately allow them to tame the "Old Man River of Texas, the Brazos" and to trade "a 900-mile pain in the neck for a natural resource which would rival oil in value."⁴⁷ Despite this unified vision for dam-centric development, development did not play out

more easily within the Brazos basin that it had in decades past. The ratio of failed or abandoned projects to completed projects still skewed dramatically towards the former, as it had during the age of levees, jetties, and locks. True, thirteen dams would ultimately be constructed within the Brazos River watershed, but developers from the Bureau of Reclamation, the Brazos River Authority, the Army Corps of Engineers, and various Texas cities had proposed twenty-three, thirteen, six, five, and single-dam plans.

Still, the individuals who lived within or otherwise engaged the Brazos basin continued to propose, to promote, and to fund projects that might employ, tame, or otherwise bind the river. They envisioned big dams and acted on even bigger expectations for riparian change. A similar resolve has characterized the broader commitment to technocracy in this nation. American faith in technological advancement has shaped the political, economic, social, and physical face of the nation for centuries – there is no doubt about the veracity of that relationship. What is less obvious, but no less true, is the realization that the technocratic narrative at play along this nation's rivers is large enough to integrate the monumental success of Hoover Dam as well as the (occasionally fruitless) efforts of lesser-known development projects.

Endnotes

1 Franklin D. Roosevelt, "Address at the Dedication of Boulder Dam" (September 30, 1935), Gerhard Peters and John T. Woolley, *The American Presidency Project* <u>http://www.presidency.ucsb.edu/</u> ws/?pid=14952.

2 Inspector Crotty to John C. Kramer, May 29, 1909, Records of the Army Corps of Engineers, RG 77, E.FW18, Box 4, Folder 400 (National Archives, Fort Worth, Texas); "Thrown in Brazos Flood as Bridge Gives Away – Checking up Toll of Texas Tragedy," *Beatrice Daily Sun*, May 17, 1922, available at <u>www.newspaperarchive.org</u>; "Crest of Brazos Flood in Waller; 20 more Drown," *Denton Record-Chronicle*, December 8, 1913, available at www.newspaperarchive.org; "Fatal Cloudbursts," *Lebanon Daily News*, April 28, 1900, available at www.newspaperarchive.org [quotation 1]; "Plans for Relief," *San Antonio Daily Express*, July 11, 1899, available at www.newspaperarchive.org [quotation 2].

3 Marc Reisner, Cadillac Desert: The American West and its Disappearing Water (New York, 1993), 145.

Vol. 53

4 United States House of Representatives, H.R. 6198: A bill to control flood waters of the Brazos River and its tributaries in the State of Texas ..." (Washington D.C., February 28, 1935), 5.

5 "Brazos Not Navigable, Connally Informs FPC: 'Not Even for Rowboats,'" *Fort Worth Star Telegram,* January 19, 1951, Fort Worth Star Telegram Collection, AR 406, 7-18 (University of Texas at Arlington Special Collections, Arlington).

6 Brazos River Channel and Dock Company, Facts with reference to the Brazos River enterprise and the "New South" (New York, 1890).

7 PWA, "Form No. 158: Legal Information Supplied by Applicant," Poage Papers, Box 1426, File 44 (Poage Legislative Library, Waco).

8 W.R. Poage to A.L. Bronsted, February 9, 1946, Poage Papers, Box 1424, Folder 27 (Poage Legislative Library, Waco); Citizens of Grimes and Waller Counties, Resolution, March 5, 1935, Mahon Papers, S 653.1, Box 459, Folder 13 (Texas Tech University Southwest Collection, Lubbock); Abilene Chamber of Commerce, Resolution, March 19, 1935, Mahon Papers, S 653.1, Box 459, Folder 13 (Texas Tech University Southwest Collection, Lubbock); W.R. Poage to Board of Directors for Marlin Chamber of Commerce, February 6, 1946, Poage Papers, Box 1424, Folder 27 (Poage Legislative Library, Waco).

9 House of Representatives, 1935, 2.

10 Ibid., 4.

11 H.P. Drought to William McCraw, October 23, 1935, Records of the Army Corps of Engineers, RG 77, FW17, Box 2, Folder 4 (National Archives, Fort Worth, Texas); C.B. McQueen to W.R. Poage, June 8, 1938, Poage Papers, Box 1425, Folder 40 (Poage Legislative Library, Waco); John R. Bigham to W.R. Poage, June 9, 1938, Poage Papers, Box 1425, Folder 40 (Poage Legislative Library, Waco); Jim Neinast to W.R. Poage, June 13, 1938, Poage Papers, Box 1425, Folder 40 (Poage Legislative Library, Waco); E.C. Cole to W.R. Poage, June 14, 1938, Poage Papers, Box 1425, Folder 40 (Poage Legislative Library, Waco); E.M. Brown to W.R. Poage, June 8, 1938, Poage Papers, Box 1425, Folder 40 (Poage Legislative Library, Waco); Roy Case to W.R. Poage, June 1938, Poage Papers, Box 1425, Folder 40 (Poage Legislative Library, Waco).

12 "Brazos Floods Soon will be Harnessed," Fort Worth Star Telegram, December 2, 1936, Fort Worth Star Telegram Collection, AR 406, 7-18-1 (University of Texas at Arlington Special Collections, Arlington);

"Waco Threatened with Brazos Flood," *The Paris News*, April 28, 1942, available at <u>www.newspaperarchive.org</u> [quotation 2]; D.W. Bell to Senator, October 11, 1935, Poage Papers, Box 1425, Folder 40 (Poage Legislative Library, Waco); Franklin D. Roosevelt to Secretary of the Treasury, September 26, 1935, Poage Papers, Box 1425, Folder 40 (Poage Legislative Library, Waco); "Wholesale Destruction' From Brazos Flood is Feared," *Morning Avalanche*, September 29 1936, available at <u>www.newspaperarchive.org</u>; "Brazos River in Spotlight Again on Two Counts," *Waco News-Tribune*, May 22, 1956, available at <u>www.newspaperarchive.org</u>; H.A. Montgomery to F.B. Wilby, October 3, 1936, Records of the Army Corps of Engineers, RG 77, FW17, Box 3, Folder 2 (National Archives, Fort Worth, Texas).

13 Brown to Poage, June 8, 1938, Poage Papers [first quotation]; C.B. McQueen to W.R. Poage, June 8, 1938, Poage Papers [second quotation].

14 John Clarkson, letter to Honorable W.R. Poage, June 8, 1938, Poage Papers, Box 1425, Folder 40 (Poage Legislative Library, Waco),

15 "Editorial: The Brazos Authority," *The Abilene Reporter-News*, April 1, 1953, available at <u>www.newspaperarchive.org</u>; "Federal Funds Sought for Dams Along Brazos," *The Abilene Reporter-News*, July 17, 1945, available at <u>www.newspaperarchive.org</u>; A.B. Thornton and Dallas Coffin Co. to George Mahon, January 25, 1935, Mahon Papers, S 653.1, Box 459, Folder 13 (Texas Tech University Southwest Collection, Lubbock); "Texas Senate Passes Bill to Speed Dam Construction," *Fort Worth Star Telegram*, May 8, 1953, Fort Worth Star Telegram Collection, AR 406, 7-18 (University of Texas at Arlington Special Collections, Arlington); Joe Bomer to W.R. Poage, June 10, 1938, Poage Papers, Box 1425, Folder 40 (Poage Legislative Library, Waco).

16 Bess Stephenson, "Brazos Dam Idea is Old," *Fort Worth Star Telegram*, June 24, 1940, Fort Worth Star Telegram Collection, AR 406, 7-18 (University of Texas at Arlington Special Collections, Arlington); Herbert S. Hilburn to George Mahon, December 4, 1951, Mahon Papers, S 653.1, Box 459, Folder 1 (Texas Tech University Southwest Collection, Lubbock); "Memorandum Report on the Economic Justification from a Flood-control Standpoint of the 13-Dam Brazos River Valley Project," January 25, 1937, Records of the Army Corps of Engineers, RG 77, FW17, Box 6, Folder 9 (National Archives, Fort Worth, Texas); J. Russell Wait to Brazos River Harbor Navigation District of Brazoria County, May 1, 1950, J. Russell Wait Port of Houston Papers, MS 346, Box 31, Folder 31.3, (Rice University Woodson Research Center, Houston).

17 PWA, "Form No. 157, Financial information supplied by Texas: State file 2143-P, 9/30/38," 1938, Poage Papers, Box 1426, Folder 44 (Po-

age Legislative Library, Waco).

18 Aubrey Williams, letter to George Dern, February 3, 1936, Records of the Army Corps of Engineers, RG 77, FW17, Box 2, Folder 9 (National Archives, Fort Worth, Texas); T.P. Carroll to George Mahon, June 12, 1935, Mahon Papers, S 653.1, Box 459, Folder 13 (Texas Tech University Southwest Collection, Lubbock); George D. Babcock to George Mahon, June 15, 1935, Mahon Papers, S 653.1, Box 459, Folder 13 (Texas Tech University Southwest Collection, Lubbock); Harry Hopkins to George Dern, January 27, 1936, Records of the Army Corps of Engineers, RG 77, FW17, Box 3, Folder 1 (National Archives, Fort Worth, Texas).

19 [*Possum Kingdom Damsite*], photograph, Records of the Army Corps of Engineers, RG 77, FW17, Box 6, Folder 7 (National Archives, Fort Worth, Texas); *Viewing East Brazos River and cliff at Possum Kingdom dam site*, 1936, photograph, Basil Clemons Photograph Collection, AR 317-10-16 (University of Texas at Arlington Special Collections, Arlington); *Kingdom Dam near Breckenridge, TX*, 1941, photograph Basil Clemons Photograph Collection, AR 317-10-17 (University of Texas at Arlington Special Collections, Arlington).

20 R.A. Wheeler to Honorable W.R. Poage, March 12, 1946, Poage Papers, Box 1424, Folder 27 (Poage Legislative Library, Waco); H.A. Montgomery to Division Engineer, January 25, 1937, Records of the Army Corps of Engineers, RG 77, FW17, Box 6, Folder 9 (National Archives, Fort Worth, Texas).

21 "Whitney Dam Grant Okay is Announced," *Fort Worth Star Telegram*, April 16, 1946, Fort Worth Star Telegram Collection, AR 406, 7-18-5 (University of Texas at Arlington Special Collections, Arlington); "Texans Make Urgent Appeal for Whitney Dam Funds," *Fort Worth Star Telegram*, March 7, 1946, Fort Worth Star Telegram Collection, AR 406, 7-18-5 (University of Texas at Arlington Special Collections, Arlington).

22 "Celebration Planned," San Antonio Express, May 11, 1947, available at <u>www.newspaperarchive.org</u>.

23 W.R. Poage to H. S. Hilburn, July 9, 1957, Poage Papers, Box 639, Folder 3 (Poage Legislative Library, Waco); W.R. Poage to Pearl A. Neas, August 9, 1954, Poage Papers, Box 639, Folder 1 (Poage Legislative Library, Waco); "Army Boss Recommends Brazos Tributary Dams," *Fort Worth Star Telegram*, March 15, 1950, Fort Worth Star Telegram Collection, AR 406, 7-18-1 (University of Texas at Arlington Special Collections, Arlington); W.R. Poage to Stuart Long, August 26, 1957, Poage Papers, Box 639, Folder 3 (Poage Legislative Library, Waco).

24 "New Lake for Waco in Brazos Program," San Antonio Express, November 8, 1964, available at <u>www.newspaperarchive.org</u>; "Engineers Consider Six New Dams for Brazos Watershed," *The Paris News*, October 21, 1947, available at <u>www.newspaperarchive.org</u>; "Army Boss Recommends Brazos Tributary Dams," 1950, Fort Worth Star Telegram Collection; Poage to Neas, 1954, Poage Papers.

25 W.R. Poage to John A. Norris, January 6, 1940, Poage Papers, Box 1424, Folder 29 (Poage Legislative Library, Waco); M.C. Tyler to W.R. Poage, April 11, 1939, Records of the Army Corps of Engineers, RG 77, FW17, Box 12, Folder 2 (National Archives, Fort Worth, Texas); Haquinius to John Norris, 1937, Records of the Army Corps of Engineers.

26 "Harnessing River is Brazos District's Job," *The Abilene Reporter-News*, September 14, 1952, available at <u>www.newspaperarchive.org</u>; Jules Loh, "BRA Has Special Plans for Dealing with Salt, Gypsum Polluting River," *Waco News-Tribune*, August 3, 1956, available at <u>www.newspaperarchive.</u> <u>org</u>; John Colton, "BRA Proposes 6 Dams to Hold River Water," *Baytown Sun*, August 8, 1957, available at <u>www.newspaperarchive.org</u>; "Review of Commission Plan on Basis of Commission Action on June 5, 1961," June 26, 1961, Records of the Army Corps of Engineers, RG 77, SW6, Box 2, Folder 6 (National Archives, Fort Worth, Texas); R.D. Collins to George Mahon, August 8, 1955, Mahon Papers, S 653.1, Box 291, Folder 19 (Texas Tech University Southwest Collection, Lubbock).

27 Tyler to Poage, 1939, Record of the Army Corps of Engineers.

28 H.F. 2873: A Bill to authorize purchase of a portion of the bonds issued by the Brazos River Authority, an agency of the State of Texas, to finance the early development by it of the water resources of the Brazos River Basin, Texas (Washington D.C., January 24, 1955), Poage Papers, Box 446, Folder 5 (Poage Legislative Library, Waco).

29 Brazos River Authority, *The River* (n.p., n.d.), Water, Inc. Collection, Box 684, Folder 7 (Texas Tech University Southwest Collection, Lubbock).

30 W.R. Poage to G.W. Lineweaver, December 20, 1954, Poage Papers, Box 639, Folder 1 (Poage Legislative Library, Waco); "New Brazos dam planned," *Brazosport Facts*, December 30, 1963, available at <u>www.</u> <u>newspaperarchive.org</u>.

31 "Engineers Report Brazos Dam Costs Outweigh Benefits," *Galveston Daily News*, September 21, 1956, available at <u>www.newspaperar-chive.org</u>.

32 "A Vast new Holiday Land," Aspermont Star, September 6, 1956, available at http://www.texashistory.unt.edu.

33 "Nugent Dam Project," *The Abilene Reporter-News*, August 12, 1953, available at <u>www.newspaperarchive.org</u>; "Dividing the Water," *Fort Worth Star Telegram*, July 21, 1954, Fort Worth Star Telegram Collection, AR 406, 7-18-4 (University of Texas at Arlington Special Collections, Arlington); "Texans Seek Law Change on Brazos Dam," *Fort Worth Star Telegram*, July 16, 1953, Fort Worth Star Telegram Collection, AR 406, 7-18-4 (University of Texas at Arlington Special Collections, Arlington); "Brazos River Dam Project Criticized by Water Users," *Galveston Daily News*, November 18, 1956, available at <u>www.newspaperarchive.org</u>; Blair Justice, "Brazos River Board Member Asserts Dams Benefit Few," *Fort Worth Star Telegram*, August 11, 1953, Fort Worth Star Telegram Collection, AR 406, 7-18 (University of Texas at Arlington Special Collections, Arlington).

34 "Comparison of Brazos River Authority's Six-dam Project with U.S. Army Engineers Authorized Reservoir Plan" (n.d.), Poage Papers, Box 446639 Folder 3 (Poage Legislative Library, Waco).

35 Emory E. Camp to W.R. Poage, October 18, 1957, Poage Papers, Box 446639 Folder 3 (Poage Legislative Library, Waco).

36 Brazos River Authority, *Let's Build Dams*! (n.p., August 1957), Poage Papers, Box 446639 Folder 3 (Poage Legislative Library, Waco).

37 "Hearing Slated on Brazos Dam," *The Brownsville Herald*, August 15, 1948, available at <u>www.newspaperarchive.org</u>; "Head of WPA is Asked to Settle Brazos Dispute," *Corpus Christi Times*, December 9, 1936, available at <u>www.newspaperarchive.org</u>; Dick Vaughan, "Money of Taxpayers to Harness Brazos, But There'll Be No Cut in Electric Bills," *El Paso Herald-Post*, November 30, 1936, available at <u>www.newspaperarchive.org</u>; "Brazos Dam Power Hearings Slated," *Denton Record-Chronicle*, May 19, 1949, available at <u>www. newspaperarchive.org</u>; "Selling Brazos Power to a Utility," *Hearne Democrat*, December 4, 1936, available at <u>www.newspaperarchive.org</u>; "Power Trust Reaching for Brazos Dams," *Hearne Democrat*, December 4, 1936, available at <u>www.newspaperarchive.org</u>; Hamilton Wright, "\$1,500,000 'Ear-Marked' For Baskin Dam Across Brazos River," *The Abilene Reporter-News*, June 28, 1944, available at <u>www.newspaperarchive.org</u>.

38 "Harnessing River is Brazos District's Job," 1952.

39 Hamilton Wright, "Brazos Fork Might be Dammed, if cities Need Water Supply," *The Abilene Reporter-News*, August 1, 1948, available at www.newspaperarchive.org.

40 "Harnessing River is Brazos District's Job," 1952.

41 Edward H. Harte, "Minor Changes in Hubbard Water Bill Seen by Latimer," *The Abilene Reporter-News*, February 18, 1955, available at www.newspaperarchive.org; Katharyn Duff, "From the Water Plant War at Reynolds Bend," *The Abilene Reporter-News*, August 6, 1966, available at www.newspaperarchive.org.

42 Duff, 1966.

43 M. H. Brannen to George H. Mahon, October 16, 1945, Mahon Papers, S 653.1, Box 459, Folder 4 (Texas Tech University Southwest Collection, Lubbock).

44 Don Tabor, "No Hope Given on Brazos Dam," *The Abilene Reporter-News*, February 15, 1964, available at <u>www.newspaperarchive.org</u>; "Booster Group For Rule Dam Organizes," *The Abilene Reporter-News*, January 11, 1964, available at <u>www.newspaperarchive.org</u>; "Preliminary Engineering Done for Brazos Dam in Knox County," *The Abilene Reporter-News*, January 30, 1944, available at www.newspaperarchive.org; Wright, "Brazos Fork Might be Dammed, if cities Need Water Supply," 1948.

45 *The Mighty Brazos Valley: a look at tomorrow* (Waco, n.d.), Water, Inc. Collection (Texas Tech University Southwest Collection, Lubbock); George Mahon, letter to W.R. Johnson, December 1, 1956, Mahon Papers, S 653.1, Box 459, Folder 7 (Texas Tech University Southwest Collection, Lubbock); "Hearings are Set on Six Basins," *Big Spring Daily Herald*, July 6, 1966, available at <u>www.newspaperarchive.org</u>; Hilburn to Mahon, 1951, Mahon Papers.

46 Ibid.

47 Vaughn, 1934.