

A Catalyst of Change on the Border

Rectification and the Rio Grande

SOURCE: WIKIPEDIA. RIO GRANDE BEND NEAR BOQUILLAS CANYON (BIG BEND NATIONAL PARK, TX)

By Mark Howe

In 1925, a series of unusual summer rainstorm events along the Rio Grande River impacted the El Paso, Texas – Ciudad Juarez, Mexico borderlands. One catastrophic rainstorm event on September 1st and succeeding days damaged over 17,000 acres of croplands, not including those in Mexico, and from “six to seven hundred acres of suburban homes at the lower end of the city limits (of El Paso)” (Brown, 1925, pp. 3-4, 8). These flood events in 1925 partially appear to be the catalyst for implementing the later New Deal Rectification Project in El Paso, Texas (Pool & Howe, 2023, pp. 314-315). These floods were only one portion of many other flood events to impact the U.S. – Mexico borderlands in this area during this time.

What I am examining is this important time frame from unpublished historical records and reports of today’s United States Section, International Boundary and Water Commission (USIBWC). This paper covers various Commission projects from 1925 until 1938 pertaining to the Rectification Project. More importantly, how this flood control project was completed along the U.S. – Mexico

borderlands that now have redefined a new international border. As a note, the IBWC (1944 – Present), is the name of this binational agency (U.S. Section and Mexican Section – known as CILA). Known today as IBWC from its roots as the previously named International Boundary Commission (IBC) that existed from 1889 – 1944 (USIBWC, 2024).

In a report titled, *Report of Flood of September 1, 1925 (El Paso – Juarez Valley) Rio Grande Project*, written by F. P. Brown of the then International Boundary Commission, Brown describes the flood that occurred in the El Paso – Ciudad Juarez Valley in detail (Brown, 1925). Brown’s detailed map displays

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broken levees and flooded locations from the “Collingsworth and Sambrano area south to just north of Hudspeth County” (Brown, 1925, p. 4, Map) This flood destroyed, damaged and flooded a large amount of the borderlands above and below the downtown areas of the two metropolitan cities, in 1925.

In 2021, large photographic negatives (3x5 inch) were found in the American Dam vault of the USIBWC in disarray, many of these pertain to the 1925 flood event and correspond to the 1925 Brown report (Brown, 1925; Howe, 2023). Because of this find, new historical information of the borderlands can now be written and shown to a contemporary audience looking at the early 1900s to 1930s of the U.S. – Mexico borderlands. However, what does all of this pertain to examining the Rectification Project? This question is one point I plan to demonstrate on how nature, people, borderlands, and two countries came together to solve their differences. This was for the social, economic and cultural good of both countries coming out of the Great Depression due to flooding on the Rio Grande River (Pool & Howe, 2023). But also, remnants of the changed border still exist today in some locations and can be found archeologically.

The 1925 Floods

According to the IBC document, *Report of Flood of September 1, 1925 (El Paso – Juarez Valley) Rio Grande Project*, “a smaller flood of thirty days previous proved the ineffectiveness of the protection of the valley lands” (Brown, 1925, p. 9). Then on Sunday, August 30th, 1925, into the morning of September 1st, 1925, heavy rains north of El Paso in New Mexico dumped large amounts of rainfall into the Rio Grande River. These rains and independent water measurements at Percha Diversion Dam recorded “a flow of 9,600 second feet in gage height” (Brown, 1925, p. 1). Additional precipitation inflows from side arroyos below Percha Dam coalesced at Leasburg Dam and then peaked at 16,900 second feet and held for 12 hours at this rate (Brown, 1925, p. 2) (Figure 1). By the time the flood waters reached the El Paso / Ciudad Juarez vicinity on September 3rd, 1925, the peak flow rate was at 13,500 second feet (Brown, 1925, p. 2).



FIGURE 1: SEPTEMBER 1ST, 1925, FLOOD WATERS OF THE RIO GRANDE RIVER. SANTA FE BRIDGE WITH U.S. IMMIGRATION STATION IN BACKGROUND WITH FLAGS ON TOP, FACING NORTHEAST.

Brown described the damage in areas of El Paso and what was at that time, East El Paso:

In the past few years the river side back of the main Franklin Canal had been raised several feet, but in spite of this precaution the canal bank was overtopped at several places and for some time an uncontrolled discharge passed down the canal, overflowing into the lower portions of the City of El Paso. Damage of from \$15,000.00 to \$20,000.00 was sustained in the softening of adobe buildings and of other damages to property. (Figure 2).

In the southeast portion of El Paso, in what is known as the Collingsworth and Sambrano Additions, a large amount of damage was sustained to suburban homes by the breaking of a levee at the lower end of the city limits. An area of six or seven hundred acres of well improved suburban property was submerged in several feet of water, and property damage will reach \$200,000.00 or \$250,000.00 in this particular locality. At a point called Ascarete [sic], which is five miles below El Paso, County and Army forces combined to return the water which had breached the levees above, back to the river channel and to prevent its flowing down the valley along the Franklin Canal and County Road, or even overtopping the Franklin Canal and flowing down the north side of the valley (Brown, 1925, pp. 4-5).

In El Paso, along Franklin Canal, flooding occurred in a large urban area and a section of the canal reversed itself in flow (Brown, 1925, Map). However, downstream of El Paso, many of the smaller communities where the Playa Levee (Drain) ran, impacts were minor to major except for fields and some infrastructure / houses (Brown, 1925, Map). In the end, Brown stated in his report:

As in the smaller flood of thirty days previous, the ineffectiveness of the

protection to the valley lands is strongly demonstrated. The international features of a complete river rectification plan greatly complicate the formulation and accomplishment of a definite program. Officials of the City and County and the El Paso Irrigation District are taking steps to construct protective works by a county bond issue, providing for the building of a river road on an embankment wholly within the territory of the United States. In this program the Bureau of Reclamation will probably be called upon for the use of equipment now on the project. A survey is now being made of the necessary reconstruction of project canal and drainage features damaged by the overflow (Brown, 1925, p. 9).



FIGURE 2: FLOODING FROM THE RIO GRANDE AFFECTING ADOBE HOUSES. PEOPLE HAVE INSTALLED EARTHEN FLOOD MEASURES TO SAVE THEIR HOUSES.

Not long after these events, the IBC started work on what I call Pre-Rectification, as seen in survey work completed for the future Rectification Project completed under the New Deal of the 1930s (Pool & Howe, 2023).

Pre-Rectification

In the archives of the USIBWC is a map book that displayed a 1928 engineering survey conducted down the Rio Grande from El Paso to Quitman Canyon (IBC, 1928). This is a map book that displays 15 sheets pertaining to lands and ownership of the area where Rectification Project would begin and end when constructed (Figure 3). I call this book “Pre-Rectification” as it is what Rectification Project looked like when completed in 1938 (Pool & Howe, 2023, pp. 314 - 318). As of now, I have not found the report



FIGURE 3: IBC PRE-RECTIFICATION AS SURVEYED IN 1928.

that this would go with and it may have been sent off to the National Archives and Records Administration (NARA) office in Fort Worth, Texas. Later research at this archive will need to be performed to see if there is an engineering report to accompany these maps.

An interesting part of these maps are the information they convey prior to Rectification Project in land ownership, river courses, islands and other data that is a microcosm of the river borderlands before the change that we see today. On Sheet 3 is marked the “*Compania Agricola Banco*”, with Reference Point Marker 305 marked on the top portion of this (Figure 4). Bancos were areas where the river changed course and thus redefined the international border. Banco’s were discussed in my previous article in *The Social Studies Texan* in the Summer 2023 article, but a portion is restated here from that article (Howe, 2023, pp. 59-60):

The Convention for the Elimination of the Bancos in the Rio Grande of 1905 had one purpose, to clarify the river border due to the river constantly changing and re-making a new river border (IBC,1910: 3-5). As a note, this discussion is only on the Rio Grande and banco’s 1 – 58 (IBC,1910), however, banco’s 59 – 89 were discussed in the 1912 publication (IBC, 1912a).

In the Convention, Article I clarified that the boundary line, “shall follow the deepest channel of the stream – and the dominion and jurisdiction of so many of the aforesaid fifty-eight (58) bancos as may remain on the right bank of the river shall pass to Mexico, and the dominion and jurisdiction of those of the said fifty-eight (58) bancos which may remain on the left bank shall pass to the United States of America (IBC, 1910:5).”

This would settle the new border due to

an ever-changing river and this Convention did that. The previous “Convention of November 12, 1884, established the rules for determining the location of the boundary when the meandering rivers transferred tracts of land from one bank of the river to the other (IBWC, 2023b).” To complete this and demarcation of the new border, the engineers of both commissions would mark around the abandoned channel of the river with wooden stakes to later be replaced by permanent concrete markers and mapped (IBC, 1910:12). This marking was started in December 1908 and field work completed in April 1909 (IBC, 1910:9).

What can be followed with the Pre-Rectification maps are the markings on the maps. As seen in Sheet 3, the engineers marked these up in Red Ink, signifying the land that would change ownership in either acres or hectares, but since in the United States, would be in acres (Reinhardt, 1937). The map sheets show surveyor elevations in areas where the river will change with Rectification, as water naturally flows downstream in elevation and follows the path of least resistance. On the U.S. side are the names of landowners. Sheet 5, has faint but readable names such as “Sisters of Loretto and Leo Aranda” for example (IBWC, 1928, Sheet 5).

By 1929 and the start of the Great Depression, many of the IBC projects were put on hold. With the election of Franklin Delano Roosevelt (FDR) as United States President in 1932, did we see many projects become a reality starting in 1933 and one of the first projects of the IBC was Rectification Project (Pool & Howe, 2023, p. 304).

Rectification – 1934 to 1938.

The Rectification Project was one of the first New Deal projects of the International

Boundary Commission after FDR’s election and his New Deal administration to put people to work and fix the flooding problem. In contrast, in 1924 under Minute 26 of the binational agency, this was one of the first Minutes to address this issue, a year before the damaging floods that severely damaged the borderlands (USIBWC, 2024). However, “not until July 1930 was an agreement (Minute 129) signed in Mexico City, Mexico, approving final plans for rectification and detailing the cost” (Pool & Howe, 2023, p. 314). President Roosevelt signed a proclamation for the project on November 13, 1933 and work began soon after (Pool & Howe, 2023, p. 314). The final agreement, Minute 144, signed on June 14, 1934 now allowed Rectification to proceed in acquiring land, construction and other activities to occur (Pool & Howe, 2023, p. 314).

Work soon began near Cordova Island and continued down to (Little) Box Canyon in Hudspeth County for about 138 km and making the international border the center of the river between the two levee systems (Figure 5). Many grade control structures were put in and are still in use today along the river route and various bridges across the river. However, most of the bridges have since been replaced, except the Fort Hancock Bridge in Hudspeth County but this will need to be replaced as it has structural issues (Pool & Howe, 2023, pp. 314 - 317). Rectification took a river that looked like a piece of wet spaghetti and straightened it out with flood control levees on both sides, as seen in Figures 4 – 6.

This project was coordinated so that land would be divided equally, (Figure 6), without loss to either country and under Minute 129 allowed each side to complete various tasks for the project to be finished (Pool & Howe, 2023, p. 316). Both countries worked together on this binational endeavor as it was in their best interest in curtailing the ever-changing Rio Grande River.

The Rectification Project was completed in 1938, but other IBC New Deal projects were also underway up and down the Rio Grande River. The Canalization Project, located upriver and started in 1938, was completed during WWII in 1943 (Pool & Howe, 2023, pp. 320 - 322). American Dam and Canal (1937 – 1938) were part of Canalization, in part, but these two structures pertained to the 1906 Convention in water deliveries and were completed before Rectification Project (Pool & Howe, 2023, pp. 321 - 323).



FIGURE 4: IBC SHEET 3 WITH COMPANIA AGRICOLA BANCO MARKED ABOVE THE CURRENT RIO GRANDE. THIS IS ABOVE AND BETWEEN THE RED 1.53 AND 65.95 ON THE MAP SHEET.

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All the New Deal projects in the El Paso – Ciudad Juarez borderlands can be seen today and are still in operation, more than 80 years since constructed. Although there have been repairs and modifications, the Rectification Project has remained as is since construction, except for areas south of Fort Hancock that have silted in and raised the river floodplain. Work by the USIBWC over the years has dredged much of this to bring the river back to flowing and decreased elevated water levels in the area. But what about the history of some of the locations that traded land for Rectification to be successful? Archeologically speaking, many sites of former homes, land and structures are still there.



FIGURE 5: RECTIFICATION PROJECT, COURTESY USIBWC ARCHIVES.

In a speech at the San Elizario Genealogy and Historical Society annual conference on April 27, 2024 (Howe, 2024). I was able to show how the Rectification Project not only changed the border but helped to curtail flooding in the area, especially after the decimation by the 1925 flood. But, in combination with how Archeological work completed in the past few years was able to show the borderlands before Rectification and the remnants of changes under the various IBC Minutes had on the borderlands.

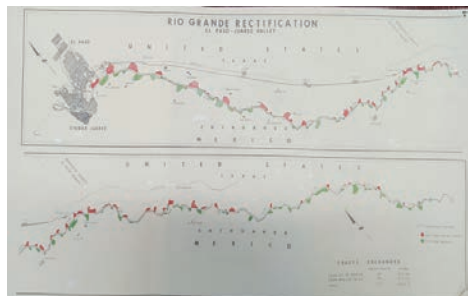


FIGURE 6: RECTIFICATION MAP SHOWING CHANGES IN LAND ON BOTH SIDES OF THE BORDER. COURTESY OF USIBWC.

Locations of former homesteads on both sides of the river, before Rectification have shown that even though the border and river moved, the history did not.

In 2018, locations were checked for sediment disposal locations of the USIBWC on El Paso Water Utilities lands west of Fabens, Texas. In these locations and comparison to the USIBWC 1928 Aerial photos, it was seen, and field verified that many former homesteads are still there. These are now archeological sites. These were houses, farms and homesteads of people on both sides of the Rio Grande before the Rectification Project (Figure 7).

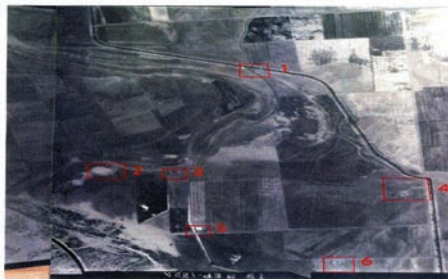


FIGURE 7: AREA OF STUDY SHOWING THE RIO GRANDE IN 1928. NUMBERS REPRESENT HOUSES, STRUCTURES, ETC., IN BOTH THE U.S. AND MEXICO.

In these locations were found bottles, ceramics and other household and historic trash. However, further archeological work will need to be completed in the future to record these locations. In Figure 7, it can be seen locations plotted against the 1928 air photo and the results of our survey found them in these places (Figure 8). I hope that this information in this paper offers a short glimpse of one of the reasons for Rectification Project, the work involved to make it succeed and the archeological heritage still in place on the borderlands that many of us in this part of West Texas and Chihuahua, Mexico, call home.



FIGURE 8: LOCATIONS OF ARCHEOLOGICAL SITES AND SITES COMPARED TO THE 1928 AIR PHOTO. NOTICE THE OLD RIVER CHANNEL AND WHAT WAS ONCE MEXICO IS NOW THE UNITED STATES.

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SOURCE: FREEPIK