Maintaining Walls: Environmental and Social Impacts of the U.S.-Mexico Border Fence

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Abstract

Between 2006 and 2009, the U.S. government constructed 1,100 kilometers of fence along the U.S.-Mexico border in an effort to deter illegal immigration and illicit activity. The fence was constructed in sections along highly populated areas, and not as one continuous wall. In addition, the Real ID Act of 2005 and Secure Fence Act of 2006 allowed the Secretary of Homeland Security to waive all environmental laws in relation to fence construction. In light of President Trump's ongoing calls for a new round of fence building, we examine the impact of the fence on communities in the border region. Through semi structured interviews, recurring visits, and participant observation in 2009 during the fence's construction and again in 2015, we examine how the fence has impacted the city of Eagle Pass, Texas and its sister community across the border, Piedras Negras, Coahuila. Approximately 4.8 kilometers of fence was built in eight segments between Eagle Pass and Piedras Negras between 2008 and 2009. At the time of its construction, many of the residents of the predominately Mexican-American community viewed the fence negatively and expressed concerns over how connections with Piedras Negras might be impacted. While we find that Eagle Pass residents continue to view the fence negatively in terms of both its social and environmental impacts and consider it ineffective given its cost and inability to deter undocumented immigration, the century long relationship between the two communities has remained strong. Overall, residents in Eagle Pass feel that community life along the border and the strong ties with their Mexican neighbors are not well understood to those away from la Frontera. In addition, recent news locally and throughout the border as a whole has brought the environmental impacts of the fence to the forefront. We reflect on the possible disruption of migratory patterns and increased flooding in Eagle Pass. Our paper concludes that evidence from both the region's ecologies and borderland communities reflect the ongoing interconnectedness of the border region, despite the disruptions and disconnections introduced by the border fence.

Keywords: U.S.-Mexico border, borderlands, immigration, Eagle Pass-Piedras Negras

1. Introduction

In the fall of 2006, President George W. Bush signed into law the Secure Fence Act, which authorized increased funding for border patrol efforts, including advanced surveillance technologies, increased checkpoints and border patrol agents, and the construction of hundreds of miles of additional fencing along the U.S.-Mexico border. The resulting fence, completed in 2009, covers almost 1,100 kilometers of the 3200 kilometer border. The fence, along with the increased border control operations, have been and continue to be controversial. Both human and environmental communities in the border region, where 2.1 Eagle Pass and Piedras Negras as Cross-National Cities segments of the fence were built, face significant disruptions. Considering the reemergence of border security in the national political debate, with the 2016 election of President Trump, our study, examining impacts of the last round of fence building, is particularly salient.

This case study investigates how the fence has impacted the city of Eagle Pass, Texas where the U.S. government constructed approximately 4.8 kilometers of this fence in eight segments between Eagle Pass, Texas and Piedras Negras, Coahuila. We use semi structured interviews and participant observation in the community to analyze the social and environmental impacts of the border fence (Weiss 1995, Creswell 2013). Interviewees included residents, including Eagle Pass citizens, dual citizens, border patrol, local government officials, and undocumented immigrants preparing to cross. Two rounds of interviews took place, the first in 2009 (21 interviews) during the fence's construction and the second in 2015 (15 interviews), five years after fence completion. Interviews were conducted by a team of two interviewers, the lead author of this paper, a Mexican-American who grew up in Eagle Pass and regularly visits and spends time in the area, and a research assistant who is a current resident of the city. We also reviewed both regional news media and peer reviewed publications on the environmental impacts of the fence. The main research questions addressed in this study are 1) What social impacts has the border fence had on local communities? 2) What environmental impacts has the fence had on local wildlife, and 3) How have current residents addressed these environmental impacts?

This paper contributes to the border studies literature by examining the social impacts of the last round of border wall building on the U.S.-Mexico border, on residents of the twin cities of Eagle Pass and Pedras Negras. We also reflect on the largely ignored topic of disruptions to the natural community and community attitudes towards these potential environmental concerns. Given the Trump administration's border policies, additional border fence construction is possible and examining the social and environmental impact of the fence is imperative to begin to understand how the fence may affect local communities.

2. Literature Review

Like other cross-border cities along the U.S.-Mexico border, Eagle Pass and Piedras Negras have, throughout their histories, shared close ties and many in the area consider the cities part of a cohesive community (Martinez and Hardwick 2009). Border dynamics that enable, limit, and regulate flows of people and materials across the border have played a key role in shaping these cities (Herzog and Sohn 2014). The region boasts a 95% Hispanic population and many extended families reside on both sides of the border (Census Quick Facts).

Located along the Rio Grande River in the south-central Texas brush country, Eagle Pass was founded initially by the Texas Mounted Volunteers and named during the Mexican American war in 1846 when it was the largest coal producing area in Texas. Piedras Negras, the neighboring sister city in Mexico, was established shortly thereafter in 1849 (TSHA 2009). In addition, the Kickapoo Traditional Tribe of Texas calls the area home and originally settled in the area in the early 1850s. A reservation for the tribe was established just downstream of Eagle Pass along the Rio Grande River in 1983.

Today, Eagle Pass serves as home for 28,765 residents while Piedras Negras has grown much larger with a population of approximately 200,000 (USDOC 2016). The border crossing between Piedras Negras and Eagle Pass is one of several major transportation routes for commerce between Mexico and the U.S. As Herzog (1991) points out, the stark economic differences between the U.S. and Mexico have driven interaction along the border and the growth of cross-national cities along the border. Since the enactment of NAFTA (the North American Free Trade Agreement) in 1994, increasing trade has fueled growth in Piedras Negras, making the city now one of the largest in Coahuila. On average per year 97,000 trucks, 1,700 trains, 2,000 buses, 700,000 pedestrians and three million personal vehicles legally enter the U.S. at the Eagle Pass-Piedras Negras border (USDOT 2016). The economic and regulatory divide across the border promotes interaction between the communities as residents seek to take advantage of price and wage differences across the boundary (Anderson and Wever 2003). Many residents from both communities cross the border on a daily or weekly basis for work, shopping, or visiting family and friends. This pattern is typical of transfrontier cities. Herzog (1991) notes that commuting across the national border is a

longstanding practice with an estimated more than 11,000 Mexican workers commuting from Piedras Negras to Eagle Pass in 1980. This crossing point is just below the average for vehicle traffic compared to other cities along the south Texas border including Del Rio, Brownsville, Harlingen, and Laredo (TCBEED 2016).

2.2 Social Impacts Border Fences

Literature within borderland studies for many decades debated the extent to which borders were becoming less influential and so analysis of the impacts of physical walls and fences were rare (see Vallet and David 2012 for a discussion). After decades of discussion within border studies literature of 'deterritorialization' (see Elden 2005 for an in-depth discussion), virtual walls made possible through digital and spatial technologies (Heyman 2008), and a 'borderless' world, walls are on the rise again in many border regions (Newman 2006). Within the EU, the Syrian war and resulting refugee crisis has led to a new round of wall building to 'defend' European borders. At the same time, political discourses of fear and rising antiimmigrant sentiment within the U.S. has led the current administration to a renewed call for increased border security and fence building, even as large numbers of Mexican laborers within the U.S. have returned to Mexico (Gonzalez-Barrera 2015). The refugee crisis in Eurasia and the election of President Trump, along with his nationalist and anti-immigrant rhetoric have put the border wall back on the political agenda.

Researchers have begun to develop a small body of literature on the social impacts and reactions to the latest round of wall building and securitization along the U.S.-Mexico border. Much of this literature focuses on the ways that the border wall fails to secure the border and resistance within border communities. Sundberg (2015) details the ways that Texas border communities were disenfranchised in the building of the border fence along portions of the Rio Grande. The U.S. government ignored the widespread opposition among community leaders and built the border fence after little consultation with residents and little consideration for environmental impacts. In 2008, DHS Secretary Chertoff suspended a variety of laws to facilitate the building of the border fence along the Rio Grande, including environmental laws such as the National Environmental Policy Act and the Clean Water Act. Researchers have also suggested that DHS privileged land costs in determining the siting of actual border fence portions, rather than sites in most need of security, limiting the effectiveness of the fence

and disproportionately impacting lower income, indigenous, and Hispanic communities (Correa 2013, Wilson et al. 2008). Kil et al. (2011) describes the growth and strategies of the Border Action Network, a grassroots human rights organization created in response to the increasing militarization of the border region. McGuire (2013) examines the impacts and responses to the latest round of wall building, finding that the wall is ineffective in securing the border, promoting new ways to get around the barrier, and new forms of resistance. Madsen (2015) specifically examines how communities along the border in Arizona have used the wall for graffiti, artwork expressing opposition to wall building, and even just for advertising local businesses, highlighting the ways that the wall disrupts border communities and the ways these communities adapt to this new barrier.

An emerging political ecology literature on border enforcement has argued that environmental discourses and materialities are key elements that impact border enforcement strategies. Vaughan-Williams (2015) and Squire (2014) use discourse analysis to uncover the dehumanizing narratives of migrants around 'animal'ity and 'desert trash.' Boyce (2016) and Sundberg (2011) point to the ways that the physical environment, including the rugged terrain, deserts, rivers, and vegetation, and wildlife, limit the success of border enforcement efforts and lead the U.S. to escalations of enforcement strategies. Scholars have also pointed to the ways that increasing border enforcement and fencing in populated areas have pushed migrants to border crossings in more remote regions, including protected areas such as national parks, wildlife refuges, and indigenous lands (Bear 2009, Cohn 2007).

While most literature on the border fence focuses on impacts of increased militarization of the border for migrants and emerging resistance actions and movements, our contribution takes a somewhat different, but complimentary tact, examining how the last round of border wall building has impacted the rhythms and realities of everyday life in border communities.

2.3 Environmental Impacts of the Fence

Scientific research revealing the environmental impacts of the border fence is lacking; however, researchers have begun to ask what the ecological impacts of physical walls at the border might be. The international border and the cross-national pattern of urbanization along the border poses significant

environmental and resource management problems for communities (Ingram, Laney, and Gillilan 1995). The building of new and expanded physical walls has been marked by the waving of U.S. environmental regulations and reviews, making it difficult to know what the impacts of the wall so far has been. The Real ID Act of 2005 and the Secure Fence Act of 2006 allowed Secretary of Homeland Security Michael Chertoff to "waive in their entirety" the National Environmental Policy Act (NEPA), Coastal Zone Management Act (CZMA), Endangered Species Act (ESA), Federal Water Pollution Control Act, National Historic Preservation Act, Migratory Bird Treaty Act, Clean Water Act, Clean Air Act, Administrative Procedure Act, and any law relating to farmland, archaeological and historic sites, religious freedoms, and Native American graves (NBW 2014a, Nunez-Neto and Garcia 2007). The waving of environmental protections was widely condemned by both government and non-profit groups concerned with potential environmental impacts. According to the Sierra Club Executive Director Carl Pope, the waivers "threaten the livelihoods and ecology of the entire U.S.-Mexico border region," (Marosi and Gaouette 2008). In addition, Mexico's Environment Minister at the time, Juan Rafael Elvira, spoke out saying "The eventual construction of this barrier would place at risk the various ecosystems that we share," (BBC 2007).

Biodiversity along the U.S.-Mexico border is threatened by the border fence, in part, because of loss and fragmentation of habitat (Jackson 2000). The border fence intersects the ranges of 38 amphibian, 152 reptilian, and 113 mammalian species and ecoregions in the area span both sides of the border (Lasky, Jetz, and Keitt 2011). In addition, according to one study that surveys the impacts of the fence along the entirety of the U.S.-Mexico border, the border lies east-west, and the dominant mountain ranges (Sierra Madre Occidental, Sierra Madre Oriental, and California Coastal) run north -south (Lasky, Jetz, and Keitt 2011). This means that the border fence bisects these ranges, which serve as home to many of the species inhabiting the area. In addition, biodiversity is potentially affected by the funneling effect that the border fence has on human migration across the border (NBW 2014a). As immigrants cannot cross near the fence line, they will be forced to cross in other, more remote areas that many species inhabit. This has the potential to cut of many species from vital resources, such as food and water, as they attempt to avoid human disturbance due to the presence of the border fence (Jackson 2000). Changes in biodiversity also have the potential to manifest themselves in reduced gene flow as populations are cut off from each other and genetic

diversity is lost (Lasky, Jetz, and Keitt 2011, BBC 2007). Changing animal migration patterns also have the potential to reduce gene flow.

The border fence is preventing species from migrating in areas throughout the border. For example, flightless birds like the wild turkey will not be able to cross areas where the border fence has been constructed (MacDougal, Vaughan, and Bromley 1991). Small birds and mammals, like quail, potentially face the loss of important cover provided by ground vegetation as fence construction and border patrol activities clear land. Megafauna that are making a recovery in Mexico, the U.S., or both, such as bighorn sheep, Pronghorn antelope, and the Mexican gray wolf, occupy areas on both sides of the border and are cut off from large portions of their habitat due to the border fence (Pelz-Serrano et al. 2006, Sanchez Cordero et al. 2007, List 2007). Any previous efforts made to re-establish these species in the area may prove unfruitful if the border fence has a significant impact on their territory. The black bear population has begun to increase in Big Bend National Park on the U.S. side specifically due to the migration of individuals from northern Mexico (Hellgrena, Onoratoa, and Skiles 2005). However, the addition of fence barriers could disrupt their migration patterns and cut off the Big Bend population from those in northern Mexico. The Rio Grande also serves as a major migratory flyway for millions of birds. However, the fence is disturbing habitat along the river, altering vegetation patterns after construction, and therefore changing food sources for many of these migrating birds (NBW 2014b). Another flying migrant, the Monarch butterfly, which migrates through Eagle Pass and Piedras Negras as it heads south, could also be affected by fence construction if its food source is affected (Marosi and Gaouette 2008). Today, changes in migration patterns and behavior are particularly important given many alterations that are occurring due to climate change. As species adjust to changes in climate and adjust their habitat ranges, changes in land cover and land use brought about by the border fence could exacerbate climate effects. According to one study by Keitt, Lewis, and Holt (2001), the border fence could slow the migration process many species are taking due to climate change, further endangering their population numbers.

In addition to biodiversity and migration threats, the fence has the potential to disrupt geomorphic processes along the border. South of San Diego, the Department of Homeland Security filled Smuggler's Gulch canyon with over 2 million cubic yards of earth obtained from nearby hillsides to create a

berm upon which to build the border fence. Since this time, little effort has been made to prevent erosion from the nearby hillslopes. In addition, the unstable berm may cause large amounts of soil to be washed into the Tijuana River National Estuarine Research Reserve that is 600 feet away should a large rainstorm or flood event occur in the area. The estuary, which depends on daily inundations from the sea, could be significantly altered if along the U.S. Mexico border between 2006 and 2009 at sediment from the gulch changes its elevation (NBW 2014a). Not far from Smuggler's Gulch in the Otay Mountain Wilderness, large areas were leveled to create areas for roads and the fence. Over 100 tecate cypress trees, a rare species in itself, but host for the even rarer Thorne's hairstreak butterfly, were cut down during construction (NBW 2014a). Due to changes in the geomorphology of these areas, rain events have the potential to lead to catastrophic consequences. For example, Organ Pipe Cactus National Monument in Arizona received monsoonal rains in 2008. Washes that normally cross the fence were flooded and debris piled up in the grates meant to allow water to flow through the fence. Dams filled with debris, sediment, and water were quickly created, and the area experienced millions of dollars of damage. No hydrological models or impact studies addressing the effect of the border fence on geomorphology or water flow were conducted prior to construction (NBW 2014a).

3. Construction of the Fence

In 2003, the creation of the Department of Homeland Security brought border security to the forefront of discussions on national security (Jones 2012). Shortly following, the REAL ID Act in 2005 allowed for the waiving of all laws necessary to current fence or barrier construction along the U.S. Mexico border (Nunez-Neto and Garcia 2007). In 2006, the Secure Fence Act allowed for the building of 1,100 kilometers of additional fencing and extended waivers to any and all sections of new border fence construction (NBW 2014a). In lieu of NEPA documents, Customs and Border Patrol (CBP) established Environmental Stewardship Plans (ESPs) to predict and monitor environmental impacts as a result of fence construction (CBP 2015). The fence, as initially planned, was to be a set of two parallel 10-15 foot tall steel walls with a 50 foot span separating them in which all vegetation would be cleared and the entire section lit with stadium lights (NBW 2014a). However, complete construction of the parallel fencing was not completed due to budgetary constraints and today most expanses consist of one 10-

15 foot steel fence. In addition, the fence was constructed largely in sections, and not as one continuous wall. Sections were built in highly populated areas in order to force illegal traffic to more rural areas where it might be easier to apprehend them (Burnett 2014).

Eleven hundred kilometers of fence were built an approximate cost of \$2.4 billion (Mann 2014, Burnett 2014). Approximately 550 kilometers of this was built as pedestrian fencing and another 500 kilometers to block vehicular traffic across the border (Board 2014). Per some sources, maintenance is expected to cost taxpayers approximately \$49 billion over the next 20 years (Mann 2014).

4. Community Opposition in Eagle Pass Before and **During Construction**

During and immediately following construction, many Eagle Pass community leaders and residents viewed the border fence (Figure 1) negatively, expressing concerns about the many potential impacts including impacts on wildlife, hydrology, day-to-day life, costs to taxpayers, ineffectiveness in preventing border crossings, and increasing risks for people crossing the border illegally. Those few that supported the fence in the community stated that the fence could only work under certain conditions and could only be beneficial if any negative aspects were mitigated. Although the city government initially agreed to work with federal officials on the construction process, this process proved challenging, leading to an eventual lawsuit by the city in relation to the purchasing of city lands for easements and the overall cost to the city (Martinez and Hardwick 2009).

A major concern for community leaders in Eagle Pass was the message the border fence would send to their Mexican neighbors. Former Eagle Pass Mayor Chad Foster spoke vehemently against the fence while chairing the Texas Border Coalition, an organization consisting of mayors, economists, and business leaders throughout the Rio Grande Valley. In protest of the fence, Foster attended a tree planting in Piedras Negras stating, "I don't think anybody can view the fence as a token of friendship or being a good neighbor." Kickapoo tribal members believed the fence fostered negative feelings with their across-the-border neighbors. Despite many negative feelings, the former Consul of Mexico in Eagle Pass, Ricardo Santana Velazquez, stated that the relationship between Eagle Pass and Piedras

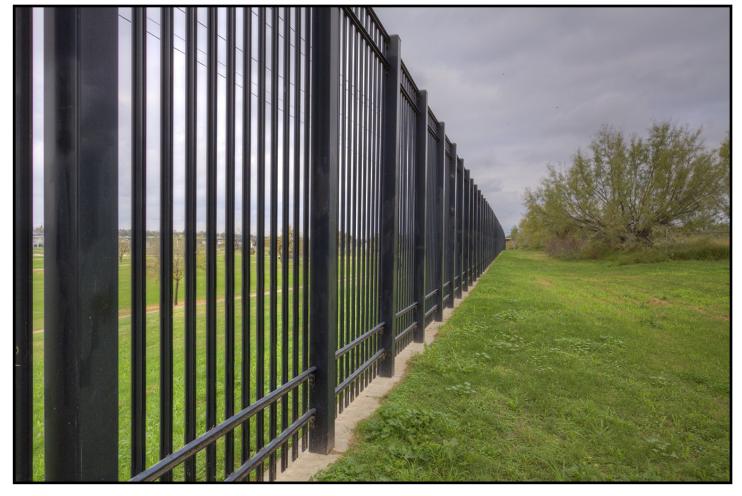


Figure 1. Border fence in Eagle Pass, Texas. River is approximately half a kilometer to the left (east) (Photo by Alejandra O. Martinez).

Negras, is bigger than the "rock or metal between them" and they will overcome the fence (Martinez and Hardwick 2009).

Many Eagle Pass residents expressed concerns about the effectiveness of a fence. For example, some found the fence unnecessary because of the natural river boundary, which already discouraged crossing. One border patrol agent stationed at International Bridge #1 stated that there was no need for a fence because the river formed a natural barrier and already deterred immigrants from crossing along the Texas border. In addition, other residents believed the fence would not have an impact on undocumented immigration emphasizing the fact that if migrants wanted to cross, they would overcome any obstacle set in front of them.

Many interviewees also expressed concerns about the cost to taxpayers. Not only does the fence cut off access to territory on the other side of the fence, the land was forcibly taken from private landowners and the City of Eagle Pass. In fact, the city is still involved in a

lawsuit and they assert that they were not adequately compensated for the property they had to surrender.

Another concern among the community in Eagle Pass was the safety of migrants journeying across the border. Many in the community sympathize with immigrants travelling from Mexico to the U.S. in search of work given that their families were immigrants as well. Residents sympathize with the arduous journey and difficult conditions that migrants can face and feel that the fence would only put their life more at risk as they attempt to cross at remote locations. In all, residents see these migrants as people attempting to improve their situation, rather than a faceless statistic. To gain the migrant perspective, we travelled to Piedras Negras and sought out those preparing to begin their journey into the U.S.

In 2009 we interviewed four immigrants residing in a Catholic Church safe house in Piedras Negras about the border fence. Only one knew of its existence and all four were not deterred by its construction. During these

interviews, we met a migrant woman from Honduras who travelled to Piedras Negras using the rail system. Along the journey she learned that she was pregnant. The coyote, or migrant smuggler, refused to take her across the border due to her condition. The Catholic priest, therefore, allowed her to seek refuge at the Catholic Church safe house for an extended period of time. Following our interview, Border Patrol officials reported that the body of a pregnant Honduran woman was found just east of the U.S. Mexico border. It seems likely she made it across but the journey proved too difficult. Such stories are evidence that while the fence and stories of undocumented immigrants might feel disconnected from those in the interior United States, these journeys are nonetheless perilous for those involved.

The city government in Eagle Pass initially agreed to work with federal officials despite community concerns about the impacts of the new barrier. Eagle Pass Mayor Ramsey English Cantu noted that the federal government approached the Eagle Pass City Council on the construction of a natural landscape barrier. Instead of a fence, natural greenery would be placed along the border to ensure illegal crossings were not taking place. At this time, the city council chose to support the federal government despite the latter's misgivings about the natural barrier. One city official stated, "Seeing how it could be better than having a fence in the long run, we planned to work with them. It did not pan out the way they initially presented [the fence] to us. And it was, of course, a disappointment... We fought that issue once it became a fence".

The city subsequently filed suit against the federal government on this issue in addition to issues of land purchases and easements which covered a 15-foot buffer on either side of the fence. Ongoing litigations in which the city claims to have been poorly informed and compensated for public lands are currently underway and costing the city up to \$200,000 in legal fees. Regarding the issue of the eight gaps along the 4.8kilometer fence (mentioned by many citizens as an issue 5 years ago), a Border Patrol official stated "some of those gaps in the fence were dual purpose. They don't all together benefit us...but that's trying to find equal ground and footing between citizens and residents of our community and meeting our needs also." The gaps he mentions were left to allow access to softball fields and parking on the other side of the fence. Regarding the effectiveness of the fence he added, "We are going to send a message...that you are not going to get out around that fence unless you use that gap. So two gaps are a lot easier to look at than an entire 2-mile area that's

5. Environmental Impacts

In addition to the impacts of easements and the fence on the community of Eagle Pass, many environmental laws were waived for fence construction and so the normal requirements to examine the potential environmental impacts of constructing a fence failed to be carried out. Today, because of the lack of environmental reviews, little is known about the environmental impacts of the fence. What follows is an examination of what is known about potential impacts on biodiversity, wildlife migration, and geomorphology of the fence around the Eagle Pass – Piedras Negras region, along with community perceptions of ecological impacts.

Prior to construction along the Eagle Pass, Piedras Negras border only one wildlife survey was conducted in the Del Rio Border Patrol Sector within which Eagle Pass is located (CBP 2015). This November 2007 survey found 3 invertebrate, 1 reptile, 2 amphibian, 1 mammal, and 21 bird species in the area. Throughout the entire border, species include many that are threatened such as the jaguar, ocelot, Mexican gray wolf, American black bear, kit fox, American badger, blacktailed prairie dog, Northern American porcupine, and jaguarondi (List 2007). Texas Parks and Wildlife spotted and captured an American black bear just outside of Eagle Pass in the fall of 2014. An additional survey in early 2008 found two wetlands and two Waters of the United States along the Eagle Pass fence section (Flossman 2011).

Regarding geomorphic impacts, the Rio Grande River near Eagle Pass-Piedras Negras periodically floods, inundating the floodplain beyond the river's banks. During two storms that occurred in June of 2013 and June of 2014, the border fence was under at least five feet of water. Currently, the city is conducting a hydrologic study to assess the effect of the fence on backflow and drainage into the Rio Grande and to determine how to allow water to flow back into the river and prevent the flooding of homes along the main canal systems. According to a high-ranking city official, "Of course, it has to have played a role in everything that went on. Because [of the fence] we have [an] intense

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backflow of water that wasn't allowed into the Rio Grande and drainage from our city canal that runs through the city as a whole." Again, Border Patrol minimized the problems maintaining that the primary issue was debris that piled up along the fence during the flood that did not allow the water to recede. Minimal damage to the fence was noted.

Within the community of Eagle Pass, the primary environmental concern focuses on habitat access and migration. Of the people interviewed in 2015, approximately half had considered the environmental implications of the fence. In terms of habitat access, one Eagle Pass citizen stated, "The construction of the border fence is detrimental to wildlife. I think it interrupts their ranges and...cuts off their access to resources." Another believed the fence did not stretch far enough to affect a migratory path. Further, many citizens mentioned it was aesthetically unpleasing. Border Patrol agents minimized the potential impact of the fence and maintained that they are ensuring proper wildlife management, "Thus far we haven't found any destruction of habitat. A lot of what's down there right now is an invasive species of cane so anything that was cleared, which really wasn't much, was an invasive species of cane." He continued, "We haven't really seen dead animals stacking up or birds flying into it. We didn't increase any level of lighting in the area. But, we work with the other agencies. We involve ourselves heavily with Fish and Wildlife and Fish and Game and make sure that we know what is there." In addition to the impacts fence placement may have on migratory pathways where it is located, the diversion of migrants to other more rural locations also has the potential for habitat destruction. However, these impacts may not be visible to residents of Eagle Pass since new undocumented immigrant routes are now located in remote areas away from the town center.

6. The Community Impacts Today

Sentiments throughout the community of Eagle Pass towards the fence continue to be largely negative. The majority of interviewees responded that the fence was a waste of taxpayer money that serves little to no purpose and is an eyesore that damages the relationship with their southern neighbors. Speaking of the location of the fence, up to half a kilometer from the river in Eagle Pass, cutting off the city golf course, one county official stated, "I had the perception that it would go close to where the river goes. I never thought it would go around the golf course." Another city official mentioned that he wasn't sure it was effective and it was a huge waste of taxpayer money. Many believe the issue of migrants seeking economic opportunities is so strong that it outweighs any efforts towards increased border infrastructure. One person stated,

> I think that while there is a need for them to come across, they will continue to come across...The reason they come is because they do the job that no one wants to do for the price that no one wants to do it for. If those conditions didn't exist, there wouldn't be a need for them to cross over. They will find a way to get across somehow.

One Border Patrol official acknowledged the problematic nature of the border fence,

It's not just about what we do. It's also about what's happening in other places in the world. We can work to make the most impenetrable border. However, if the desperation gets great enough, people will find a way through. They will keep trying so long as there is some draw and some benefit. A lot of people don't realize that folks aren't coming here for the geography.... They're coming because we have a strong economy and they don't. But by and large we deal with economic migrants. We're dealing with on a 99% basis folks coming for economic hardship. You cannot begin to target that in just a single solitary enforcement fashion. There has to be different approaches.

However, he went on to defend its placement:

Where it becomes actually more beneficial is where you have an incorporated area. In an area where you now have seconds to disappear. Then fencing becomes sort of a reliable barrier. And all its going to do, in essence, is give you a slight increase in time to detect that a person has entered, funnel them into a particular spot where you can monitor a smaller piece of border with resources and, like I said, increase that time between when someone can get into a car that's waiting or into housing areas.

Concern still exists in the community regarding the message it sends our southern neighbors. One community official stated, "Fifty to sixty years from now, the history books are going to have this fence that

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was up there. Some writers are probably going to glorify it and others are going to write the cruelty that it created and the animosity it created in many communities." He continued, "I feel uncomfortable. We've lived with that culture for many years and now all of a sudden we are ostracizing them. I don't feel it's any good either for the economy or the relationship with the culture we live close to...I've never liked the idea." A city official stated,

> The people on the Mexican side, the people who are not concerned with illegal immigration are the ones that are looking at what's happening here. The people who conduct international government-to-government relations, business relations, are the ones that are looking at it and they understand that locally we did not do this, but there is a resentment. What it has done, it has put a barrier between what the people used to do here. It's right in the middle of a place where we conducted and continue to conduct civic activities, city activities. It's the place where we can gather in large quantities and we are not able to without some obstruction there.

Another city official said,

I feel it has been more of a detriment to the overall country, as a whole, sending a very mixed and wrong message to our neighboring country in Mexico. And also, personally, the way that it was constructed here in Eagle Pass with so many gaps along the way, I don't think it met its intended purpose at the time they were constructing it. Personally, in my opinion, I feel it was a total waste of money and resources our government could have used in a more effective [way].

The same city official recalls attending a rally in Acuña, Mexico where numerous mayors along the Texas -Mexico border marched from the city of Acuña to Piedras Negras, over 88 kilometers, in protest of the fence. The mayor of Acuña at the time walked barefoot to prove a point and send a strong message against the fence. Several people cited that instituting one fix along a diverse border was where the federal government misjudged the border region:

> In some areas, they thought it would work well and they just kind of wanted to continue it onto this area even though it was pointless. Initially it started out as a good idea but they made a

generalization about all the [border] areas and how it could be useful in all areas but it actually can't. In this area it's not effective at all because [of] the lay of the land...It's pointless because areas need to be left open and it cuts off areas that are used by the city. It's necessary to have these gaps and these gaps kind of make it all futile.

Even Border Patrol agents acknowledged that other measures such as technology and additional border agents might be more effective in aiding their enforcement efforts. One Border Patrol agent emphasized the need for more efficient procedures. He said, "You have border agents doing the legwork and then once they do the legwork and catch the people, they spend 4-5 hours processing. That processing should be done by secretaries or somebody that doesn't have to go run after people or carry guns. It needs to change somehow." Given the option of virtual monitoring, he went on to say, "But who's going to respond to it? It has to be agents." Another agent emphasized the positives of technology:

> The fence isn't cheap...and things change in a six to eight-year period to the next. Technology has advanced to the point that you know we've got drones and satellites and ground sensors. We obviously would go for the item that most helps us make use of the manpower we have. In other words, we have X amount of agents here. If we have a tool that's going to multiply that, then we are going to go with that tool. Fencing is very difficult. And the reason fencing is difficult is because we have private landowners and incorporated landowners that might be cities and churches and just Joe citizen.

Ultimately, many in the community feel that despite the negative connotation, it brings to the border area, the community and relationships established over decades with their Mexican counterparts will persevere. One citizen put it thusly, "I think that most people know that it's the [federal] government and not Eagle Pass. They know us."

In contrast to interviews in 2009, when many residents expressed concerns about how the fence might separate Eagle Pass from Piedras Negras, our discussions with community members in 2015 reflected the inability of the fence to separate what is essentially one community. In addition to a continuing belief that the communities will overcome the message the fence Martinez and McKinnon The Southwestern Geographer 20 (2017): 18-30

exudes, many community members have begun to become inured with the fence and no longer reflect on its impacts. One county official stated, "To be honest with you, I hate to use the term aloof, but I think people have gotten used to it being there." A Border Patrol agent stated similarly, "I don't really see a change. It's a negative visual. But you've survived. Business is still the same, it's booming, it's back to the same way it was." Another citizen stated, "I give the community of Eagle Pass a lot of credit for ignoring the fence. You don't hear a lot of people complaining or talking about the fence...Because of the strong ties that Eagle Pass and Piedras Negras have, I don't think it's affected them in any way."

By 2015, some community members had adopted the discourse of border security and community safety. They attempted to reframe the money spent on the fence not as a waste, but an influx of federal dollars into the community. A county official stated about increasing border infrastructure and jobs:

> Economically, we welcome anyone who wants to come into Maverick County. It's actually a good thing. But what's the definition? People that tend to be more to the right say we want less government. Well, what's this? This is more government. You're creating more jobs. You're creating more of a situation where the government is actually pumping in more money. And if the money comes to the border in that fashion, we don't have a problem with it. It's more construction. It allows for more housing. And we have a diverse community. Maverick [County] is very unique in that it opens its arms to anyone that wants to become part of our community...I think it could be an economic boom for our community.

The idea of community safety presented itself in Maverick County as a new theme after construction of the fence. In terms of immigration reform, one city official stated,

> I think the security for the community is important. And I would certainly hope that whatever security is needed for Maverick County or Eagle Pass, it's given to us. If there is an increase in security, so be it. Someone has to be responsible for taking care of its citizens.

According to Border Patrol, a primary reason for the construction of the border fence in downtown Eagle

Pass is to deter individuals from crossing the river at that location. Drownings are common in the area and one agent stated,

> We had eight drownings there. Eight people drowned in one fell swoop. That river goes from inches deep to dozens of feet deep in a matter of 5 or 10 feet upriver or downriver. So at night a smuggler brings someone across where there is a rock crossing, it seems like a relatively safe endeavor. However, if somebody loses grip of a child, in which case where that fence sits below the waterworks, we lost a four-month-old child. We had to hear the mother screaming for her four-month-old child that was dropped by a smuggler into the water. So from our perspective, it serves as a deterrent...and it saves a life or it impedes somebody from trying to get in that river.

However, much of the literature and local new coverage throughout the border area has emphasized the fact that the fence pushes undocumented immigrants to rural crossing areas that may be more dangerous. In addition, like perceptions of impacts on wildlife migration pathways to less visible areas, impacts on undocumented immigrant migration patterns and any dangers encountered may be invisible to the residents of Eagle Pass.

On a personal level, one Kickapoo tribal member also referenced safety. Although the fence does not extend to the reservation located along the Rio Grande thirteen kilometers downstream of Eagle Pass, she felt it is needed there to prevent illegal crossings and activities. She said,

> I would like there to be a fence. I'm afraid of the bad people that cross drugs and pass through there. I'm scared that they'll suddenly come and harm people, come into the reservation. That's why I think the fence would benefit us there, near the casino. Sometimes the kids play by the river and there could be someone on the other side that means to do them harm or persuades them to do something they shouldn't do, like cross drugs. (translated from Spanish)

At the time of fence construction, much of the violence in Mexico had been isolated to larger cities along the border such as Nuevo Laredo and Ciudad Juarez. In the years since construction, Piedras Negras has seen an increase in violence involving drug cartels.

As the cartels grew and gained control of large areas along the border, local news stories of cartel activity have reached Eagle Pass residents. For this reason, residents may feel a need for increased security to prevent cartel presence on the U.S. side of the border.

7. Conclusion

Our study illustrates the social and environmental impacts of border fence construction in Eagle Pass and the evolution of community perceptions towards the fence. Opposition to the fence continues with residents primarily citing their concern for the wellbeing of undocumented immigrants and the many species that call the border area home. Residents find the placement of the fence problematic and its cost unnecessary due to its inability to deter undocumented immigrants. In addition, the negative effects of flooding were likely exacerbated by the fence. On the other hand, many residents have become accustomed to the presence of the fence in the community and some have even adopted discourses regarding its ability to provide safety and security.

Given the renewed discussion of additional border fence building in the national media and a recent Presidential Executive Order, it is possible that additional fencing will be constructed in Eagle Pass and throughout the border. However, in this study we found that Border Patrol agents acknowledge that fencing may not be the most effective way to secure the border in this technological age.

We believe that given evidence presented here, as well as anecdotal evidence throughout the border region, other communities feel similarly that the cost of the fence far outweighs the potential benefits it could provide. Any additional construction would further alienate our Mexican neighbors, fail to prevent undocumented immigration, negatively affect the environment, and cost the taxpayers money without providing many of the claimed benefits. In fact, a more continuous wall, as is speculated in the national media, could further exacerbate each of these effects and make large sections of land on the 'other' side of the fence, though still on the U.S. side of the river, inaccessible.

Our examination of the Eagle Pass community emphasizes that the borderland and communities within share a long history and many cultural practices with their Mexican neighbors, uniting these communities in a way that is distinctive from communities within the interior of the U.S. As one community member emphasized, "What I can talk to you about is the perception of people that don't live here on the border and the failure of that message for people to understand. This is not a wild frontier where you have people that are trying to cause problems." Instead, he emphasized the centuries old connectedness, and not the adversarial relationship often portrayed in the media. He continued, "unfortunately unless you live on the border, the *frontera*, you don't understand how it works."

Acknowledgements

The authors would like to thank Juanita V. Martinez, Emma Alvarado, and Joselyn Ponce Vielma for assistance with field work and knowledge of the local area. We would also like to thank Ian McKinnon and Chelsie McWhorter for providing thoughtful edits on early drafts of the manuscript and the anonymous reviewers for providing insightful comments that greatly improved the work. In memory of Chad Foster who fought against the fence until his passing and Susan W. Hardwick for her immense support throughout the project and her love for the border region.

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