

Death, Damage, and Failure:

*Past, Present, and Future Impacts
of Walls on the U.S.-Mexico Border*



Executive Summary

Ignoring on-the-ground realities has become a hallmark of United States border policy. Almost all recent federal decisions regarding policies impacting the U.S.-Mexico border region have been made in the realm of politics, where emotional appeals and symbolic gestures carry more weight than carefully crafted proposals based on facts and informed projections regarding outcomes. As a result, the U.S. has turned away from addressing the complex causes of immigration and smuggling, and a careful consideration of the most effective ways to respond to these issues, and instead has focused myopically on enforcement and militarizing our borders. Building walls along the southwest border has become a centerpiece of this trend. Like the overemphasis on enforcement, the border wall project is not grounded in facts. Some 654 miles of border barriers built over the course of the last quarter century have not fulfilled the poorly defined and shifting benchmark of “securing the border.” Instead, existing border walls blight border communities, tear apart delicate border ecosystems, and redirect crossings into the most remote and treacherous areas where thousands of men, women, and children have lost their lives attempting to enter the United States in search of safety or economic opportunity.

In the midst of continued calls by some to build more border walls, it is critical to look past emotion and symbolism and instead base policy upon information that is empirically and historically verifiable. In this report, we analyze the rationale behind border barriers, discuss the effectiveness of border walls in regards to unauthorized migration, smuggling, and national security, and illustrate the wide-ranging damages that existing walls have inflicted upon border communities, the environment, and the lives of border crossers. To accomplish this, we present the on-the-ground impacts of the walls that have been built over the past two decades. Looking at the effects of border walls that already stand, we can predict the likely impacts of additional walls that Congress has funded, and additional walls that have been proposed but have yet to be funded. The findings in this report reveal that building more border walls - whether they’re called border walls, fencing, levee walls or barriers - would be a tremendous waste of tax dollars, would compound the damage to border communities and the environment, and increase the annual rate of migrant deaths that walls are already causing on the U.S.-Mexico border.

These findings include the following:

Border walls do not make the U.S. safer or significantly reduce smuggling or immigration.

- The number of apprehensions, the statistic that the U.S. Border Patrol uses as a proxy to gauge the overall number of people attempting to cross into the United States without authorization, remains unaffected by walls and other enforcement measures. A steady decline in apprehensions began years before walls went up, and declines were recorded along the unwalled Canadian border and coastlines concurrent with drops in apprehensions along the southwest border.
- Border walls can be scaled with a simple ladder and suffer hundreds of breaches every year, including holes that are cut through them and tunnels that are dug under them. In some instances, the erection of barriers and patrol roads have actually led to an increase in incursions by smugglers.
- Walls do nothing to address the ongoing influx of asylum seekers fleeing violence and government instability in countries around the world. These people account for a significant portion of apprehensions at the border, and many of them seek out rather than evade law enforcement in order to request asylum.
- As a region, the southwest border is already safe. Contrary to political rhetoric that mischaracterizes the border as a war zone, U.S. border communities have lower crime rates than many cities in the interior of the country.

Border walls continue to cause tremendous environmental devastation.

- Existing walls have fragmented and degraded critical habitat for wildlife, including endangered species like the jaguar and the Sonoran pronghorn in Arizona, the Mexican wolf in Arizona and New Mexico, and the ocelot in Arizona and South Texas. Proposals to wall-off the U.S.-Mexican border would result in an unprecedented, continent-wide splitting of transborder habitat and wildlife corridors, with enormous long-term deleterious consequences for the rich biological diversity of North America.
- Across the borderlands region, walls have led to the silting up or filling in of sensitive wetlands and waterways. In California, for example, runoff from roads and berms associated with the border wall threatens the health of the Tijuana River Estuary, where sensitive flora and fauna depend on water clarity and appropriate salinity levels.
- The destruction caused by existing border walls is due in part to the Real ID Act of 2005, Section 102, which - despite separation of powers concerns - allows the Secretary of Homeland Security to waive any and all laws, effectively ignoring the damage that border walls cause, not only to the natural environment but also to people in the surrounding communities. This allows DHS to skip important environmental assessments and public processes, and to avoid examining alternatives to walls. There is every indication that more waivers will be enacted to build new walls, promising that they will be equally destructive and dismissive of public review and input.

Border walls have inflicted serious damage upon border communities.

- The tendency for border walls to act like dams has created and exacerbated flooding in border communities, leading to millions of dollars in damage to property in both countries, as well as loss of life in Mexico. New walls planned for the Rio Grande floodplain in south Texas pose an alarming risk to riparian habitat, wildlife, property and the people who live in communities on both sides of the river.
- Barrier construction has disturbed or destroyed indigenous graves and cultural sites, particularly affecting the Tohono O’odham Nation. Numerous historical, cultural and archaeological sites lie in the path of proposed walls.
- In Texas the vast majority of the land adjacent to the border is privately owned. Hundreds of landowners have already been forced to give up their property, which in some instances has been in their families since the 1760s, through eminent domain seizures by the federal government. Hundreds more will lose their property or ready access to it, including homes and farms, if additional walls are built.
- Walls have cut off public spaces. When the so-called Triple Fence was built through Friendship Park, a binational park that straddles the border between San Diego and Tijuana, access was severely restricted. In Texas where the border wall must be built up to 2 miles north of the Rio Grande, popular sites including state and national parks and national wildlife refuges could be walled off and closed to the public.

Border walls contribute to the ongoing humanitarian crisis of migrant deaths on our southwest border as they push migrants into more remote desert areas.

- Between 1995 and 2018 the remains of thousands of men, women, and children have been found on migrant trails, and thousands more are believed to lie undiscovered, their bodies lost to the elements and their bones scattered by wildlife. Building walls, especially in urban areas, pushes border crossers into more remote and rugged desert areas where their survival is at greater risk.
- Even as the number of apprehensions has decreased in the last several years, the likelihood of a border crosser perishing during their journey north has increased. By funneling border crossers into hostile terrain, border walls indirectly kill people and more walls will make the trek even more deadly.

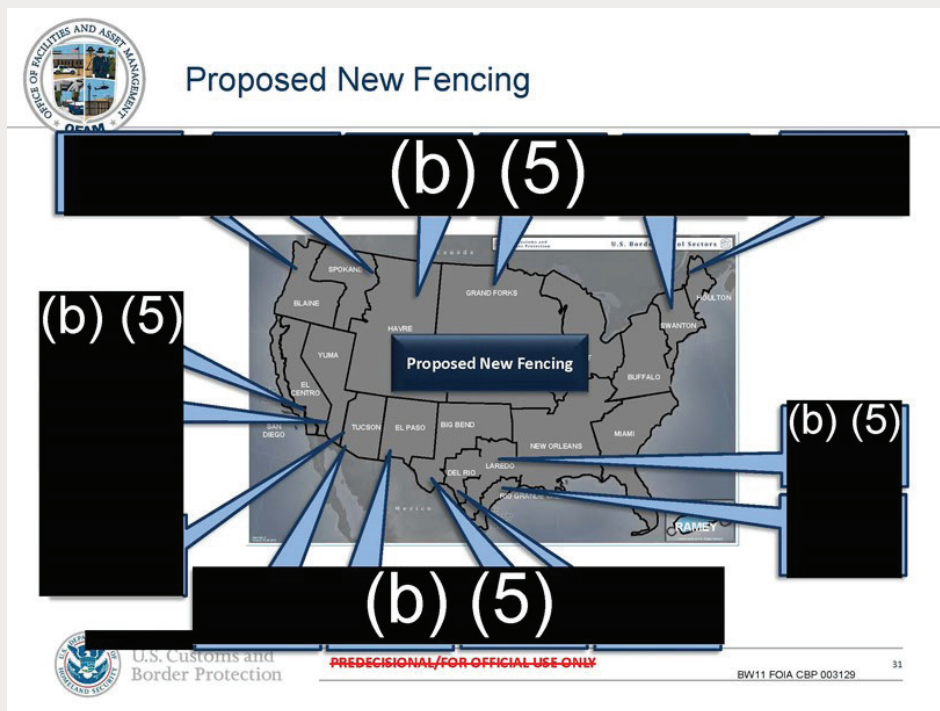
One of the consequences of the undue politicization of the United States’ border enforcement strategy and fear-mongering about border communities and immigrants, is that constant escalation, not data, analysis, consultation and rule of law, has become the hallmark of border policy. In the 1990s, border crossings spiked just after an expansion of the Border Patrol and the erection of the first border walls. Rather than conducting an analysis to determine the root causes spurring this influx or address the flows of unauthorized border crossers, Congress and the George W. Bush Administration responded by passing the Secure Fence Act, which mandated the construction of 700 hundred miles of more border walls. Subsequently the Government Accountability Office (GAO) and others found little evidence that the billions of dollars spent on those border walls had affected the number

of people entering the United States between ports of entry. Yet, Congress and the Trump Administration are presently building additional border walls, and there are proposals for even more. At no point has Congress conducted a transparent examination of the efficacy of walls, building upon the research and recommendations of the GAO and others, with the intent of informing federal border policy.

If the goal of policymakers is to reduce smuggling and address the flow of unauthorized entrants into the United States, looking at “lessons learned,” developing an empirically-based cost/benefit analysis and engaging in consultation with impacted communities should be the first steps towards crafting policy and appropriating funds. Instead, within weeks of the 2016 election, U.S. Customs and Border Protection (CBP) was called upon to brief the new President’s transition team regarding his oft-repeated campaign promise to erect new border walls. Heavily redacted briefing documents obtained through the Freedom of Information Act include maps of the locations of existing walls in the

southwest border states of California, Arizona, New Mexico, and Texas, as well as possible locations for new border walls in those states. The presentation continues with a map of possible border wall locations for each of the northern border states of Washington, Idaho, Montana, New York, Vermont, New Hampshire, and Maine as well. The precise locations of these walls are hidden beneath the black box of each map’s redaction, but even with that information obscured, they speak to the faulty logic of escalation, as opposed to addressing root causes of immigration and smuggling. So long as impacts of border walls are not examined and quantified, and so long as alternative solutions are not duly considered, the default approach will always be more walls and walls in ever more places.

Instead, we should bring this escalation to an end. In light of the findings presented in this report we recommend a moratorium on the funding and construction of additional border walls, and a reevaluation of the strategy that led to them.



Redacted U.S. Customs and Border Protection slide from November 26, 2016.

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Landing mat border wall near Jacumba, California. 2015. Scott Nicol.

The Foundations of the Border Wall: 1953 - 2005

Civil Rights Restrictions in the 100-Mile Border Zone

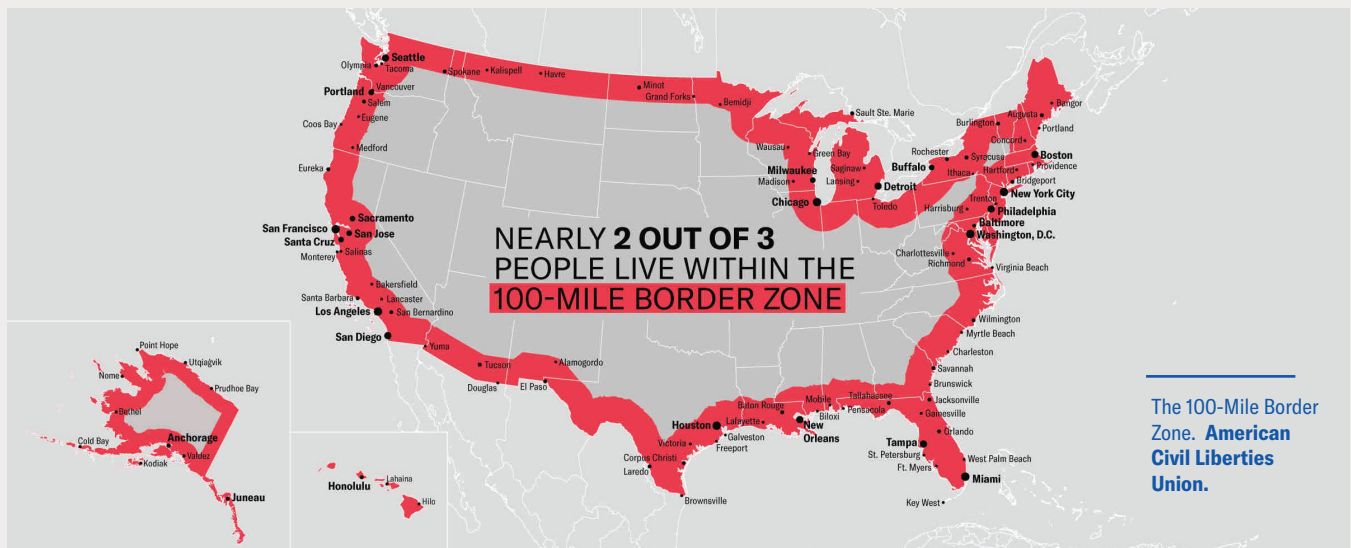
Existing border walls are the product of a decades-long build-up of legal decisions and policy determinations that set off the southwest border as a place distinct from the rest of the United States. The first major shift in the way our country collectively conceived of the border came with the Immigration and Nationality Act of 1953 which grants immigration agents the authority to enter all private property, with the exception of people's dwellings, within 25 miles of the U.S.-Mexico or U.S.-Canada

borders or U.S. coastlines. This law also allows agents to board and search “within a reasonable distance from any external boundary of the United States.” Under the Constitution, as interpreted by the Supreme Court in 1973 (*Almeida-Sanchez*), the Fourth Amendment still constrains such stops and searches, but the Border Patrol often acts otherwise. Although undefined in the law itself, “reasonable distance” came to be described as 100 miles into the U.S. interior from the boundary line or coastline, an area that is home to roughly two-thirds of the U.S. population.¹

After the 1953 law was enacted the Border Patrol began establishing fixed checkpoints on highways leading away from the southwest border within this 100-mile area. All vehicles were stopped, drug dogs sniffed cars in search of narcotics, and agents questioned the occupants. Some vehicles were referred for secondary inspections, which could be lengthy and intrusive. These extraordinary powers would seem to be an obvious trigger for Fourth Amendment protections against unreasonable searches and seizures. But when these checkpoints were challenged in 1976, the Supreme Court ruled that while they met the definition of seizures covered by the Fourth Amendment and did not eliminate probable cause required for searches, suspicionless stops at checkpoints for “brief immigration inquiries” were generally not sufficiently intrusive to be a Constitutional violation. Using reasoning that would be rejected 25 years later by an appellate court on account of demographic change, the majority wrote

that this would hold “even if it be assumed that such referrals are made largely on the basis of apparent Mexican ancestry.”² The ruling essentially sanctioned the notion that proximity to the border qualified certain Constitutional protections that apply elsewhere in the country. The subsequent injustices that result from Border Patrol conducting enforcement activities through racial profiling have been widely reported around the country for many years.

During the Obama administration the U.S. Department of Justice (DOJ) moved to stamp out the practice among federal law enforcement agencies with new guidelines, issued in 2014, that explicitly forbade the use of racial profiling. U.S. Immigration and Customs Enforcement (ICE) and the Border Patrol reportedly objected to the new strictures, claiming that the inability to profile people would prevent them from carrying out their duties, even



1 “The Constitution in the 100-Mile Border Zone.” American Civil Liberties Union, www.aclu.org/other/constitution-100-mile-border-zone

2 United States v. Martinez-Fuerte, 428 U.S. 543 (1976); see also United States v. Montero-Camargo, 208 F.3d 1122 (9th Cir. 2000) (en banc).

though current DHS policy forbids it for all routine law enforcement operations.³ As a result, the final DOJ guidelines stated that “This guidance does not apply to interdiction activities in the vicinity of the border, or to protective, inspection, or screening activities.”⁴ Whereas racial profiling was meant to come to an end, the practice of profiling within the 100-mile border zone was explicitly permitted. Exempting border enforcement agencies in this way has meant that the thousands of complaints of racial profiling lodged against those agencies documented by the American Civil Liberties Union and others have continued to accrue.⁵



A Border Patrol agent near McAllen, Texas along the Rio Grande. 2013. Donna Burton. Wikimedia Commons.

3 Apuzzo, Matt, and Michael S. Schmidt. “U.S. to Continue Racial, Ethnic Profiling in Border Policy.” *The New York Times*. December 5, 2014.

4 *Guidance for Federal Law Enforcement Agencies Regarding the Use of Race, Ethnicity, Gender, National Origin, Religion, Sexual Orientation, or Gender Identity*. U.S. Department of Justice. December 2014.

5 Rickerd, Chris. “A Dangerous Precedent: Why Allow Racial Profiling at or Near the Border?” *aclu.org*. December 8, 2014.

Through Border Patrol’s geographic and constitutional overreach, the U.S. government acts as if border security trumps civil liberties, including equal treatment under the law, and that abuses rebuked in the rest of the country are somehow acceptable in this 100-mile zone. This attitude, that the border region is a place apart, not subject to the same legal protections as the rest of the country, laid the foundation for building walls, where the claim would once again be made that conditions at the border were so dire that existing laws protecting civil liberties and the public interest should be disregarded and not be allowed to “get in the way.”

The First Border Barriers and the Failure of Prevention through Deterrence

A second concept that forms the ideological foundation upon which border walls are built is ‘Prevention through Deterrence,’ the notion that enforcement agencies can actually prevent smuggling and unauthorized migration by making it so difficult that those who might otherwise attempt to come across the border give up without even trying. This tenet, and the understanding of walls as a means to deter people from attempting to cross, developed gradually, even as physical barriers went up in some places along the border. It was not until 1994 that this policy was codified and named by the Border Patrol; prior to that the border was policed, but its permeability was not deemed worthy of the sort of militarization that characterizes it today.

Throughout the twentieth century, short stretches of barbed wire or chain link fencing had been erected, though these were in many instances aimed at confining or preventing transboundary movement

of livestock, not stopping human beings. Fencing directed at hindering border crossers eventually went up in some urban areas along the border where it was easy for people to walk across, blend in with crowds, and disappear into city streets. These barriers aimed to hinder the casual crossings that took place at that time—workers who entered the U.S. daily for jobs, people who sold goods on the streets, as well as petty criminals. But the barriers were hardly a serious impediment. The chain link fence separating Nogales, Arizona from Nogales, Sonora, for example, was riddled with holes, and city leaders regularly removed a section to allow for cross-border parades through the sister cities.⁶



Landing mat border wall entering the Pacific Ocean south of San Diego. 2008. Scott Nicol.

Between 1990 and 1993 the Border Patrol acquired corrugated steel panels that the military had used to create makeshift helicopter landing pads during the Vietnam War. They welded these landing mats together to create a ten-foot-tall border wall that began on the beach between San Diego and Tijuana and extended inland for fourteen miles, ending at the Otay Mesa port of entry. People had

⁶ McGuire, Randall H. “Steel Walls and Picket Fences: Rematerializing the U.S. – Mexican Border in Ambos Nogales.” *American Anthropologist*. Vol. 115, Issue 3. September, 2013. pp.469 – 471.

for years crossed in this area, sometimes by the dozens, often traveling back and forth daily for jobs in San Diego.

Simultaneous with the erection of the first landing mat border walls, the number of Border Patrol agents grew. Their enforcement efforts were concentrated within the 100-mile zone along the southwest border, where the overwhelming majority of agents would be stationed. Residents of communities in the border zone were subject to being stopped and required to provide proof of U.S. citizenship. The entire city of El Paso lay within this zone, and this dragnet-style enforcement outraged many who were subject to it. Resident citizens sued the Border Patrol alleging that their Fourth Amendment rights were being violated on a regular basis. One of the plaintiffs, a coach at El Paso’s Bowie High School, complained of being stopped by Border Patrol and having a gun pointed at his head by an agent as he was driving his students to a game. Other students complained of multiple encounters with agents who threatened them with physical harm. In a 1992 ruling a federal court enjoined the Border Patrol in El Paso from questioning or detaining individuals unless they had an articulable reason for suspicion. Appearing to be Hispanic, the court ruled, was insufficient.⁷

In an effort to respond to the ruling, then-El Paso Sector Chief Sylvester Reyes directed Border Patrol agents who had previously patrolled El Paso’s neighborhoods stopping and questioning those who they guessed might be undocumented, to instead line up on the border, creating a human wall. The intent was to create a show of force that would convince would-be border crossers that they had little chance of success and should give up without even trying. Chief Reyes’ new tactic was initially called Operation Blockade, and later renamed Operation Hold the Line.

⁷ *Murillo v. Musegades*, 809 F. Supp. 487 (W.D. Tex. 1992).



Border fence at Sunland Park, New Mexico. 2013. Scott Nicol.

The Border Patrol's first national Strategic Plan released in 1994 built upon Operation Hold the Line, proposing a similar strategy along the entire southwest border.⁸ Hold the Line was upheld as a strategic model, with its wall of agents credited with convincing those who considered crossing unlawfully into downtown El Paso to rethink their plans. This model would be replicated along the border and renamed Prevention through Deterrence, the premise being that the sight of a hardened border lined with agents and technology, including fencing like that which had been erected near San Diego, would convince potential border crossers that successful entry was impossible and, if attempted, capture was inevitable. The show of force would deter them to the point that they would abandon any plans to come north, thereby preventing the unlawful crossings before they occurred. The urban areas where most people came across the border, notably El Paso and San Diego, would receive the first infusion of agents and resources. Once those locations were brought under control, resources would be directed to south Texas and the Tucson Sector, on the assumption that in response to difficulty entering through El Paso and San Diego the

⁸ Border Patrol Strategic Plan: 1994 and Beyond. United States Border Patrol. July, 1994

loci of crossings would shift. This strategy would provide the justification for hiring thousands of new Border Patrol agents and lining the southwest border with steel walls.

The Funneling Effect

Neither landing mat border walls nor the “human wall” of agents brought crossings between ports of entry to a halt. Instead they simply rerouted the traffic, as people seeking to enter the United States clandestinely moved from safer, urban locations to more remote and perilous ones. When Chief Reyes moved his agents out of the city and onto the border line, El Paso saw an immediate reduction in crossings through its downtown, but it was quickly apparent that traffic had simply shifted to Sunland Park, New Mexico, just a few miles to the west. Two months after the Operation Blockade deployment, the Border Patrol requested the installation of border fencing there in response to the shift.⁹ The year before the Border Patrol unveiled its 1994 Strategic Plan, Sandia Labs had been commissioned to examine the effectiveness of San Diego's border wall and El Paso's deployment, and their analysis revealed a similar shift. They found the landing mat walls to be “totally ineffective” and reported that rather than bring a halt to cross-border traffic “the San Diego and El Paso sectors' initiatives appear to have rerouted drugs and illegal aliens to other parts of the southwest border.”¹⁰ The following year the United States Commission on Immigration Reform,

⁹ Dunn, Timothy. Blockading the Border and Human Rights: The El Paso Operation that Remade Immigration Enforcement. University of Texas Press. 2009. p. 97.

¹⁰ *Systematic Analysis of the Southwest Border*. Sandia National Laboratories. January, 1993. Report obtained by the Sierra Club via Freedom of Information Act request.

looking into the efficacy of Operation Blockade, found that, “while net monthly apprehensions were steeply reduced in El Paso, net apprehensions increased across all other sectors.”¹¹

The authors of the Border Patrol’s 1994 Strategic Plan did not reference these assessments of their tactics. They started with the conviction that while “sealing” the border was unrealistic, it could “be brought under control.”¹² They argued that a build-up of enforcement at the border would deter people from trying to cross, but only when “apprehensions approach 100 percent of those attempting entry.” Alongside this was an admission that “a 100 percent apprehension rate is an unrealistic goal.” That left the Strategic Plan to espouse what was at best a belief, that “we can achieve a rate of apprehensions sufficiently high to raise the risk of apprehension to the point that many will consider it futile to continue to attempt illegal entry.” From its inception, then, Prevention through Deterrence was aspirational, and based on a vague supposition that there is a rate of apprehension below 100 percent that, while less than the necessary threshold, will still function to deter people.

The Plan failed to make a case that it would be possible to deter people from attempting to cross. Instead, the Border Patrol acknowledged that as agents and other resources made entry more difficult at preferred crossing points, traffic would simply shift to other places. Ultimately, they wrote, “the prediction is that with traditional entry and smuggling routes disrupted, illegal traffic will be deterred, or forced into more hostile terrain, less suited for

11 Bean, Frank D., Roland Chanove, Robert G. Cushing, Rodolfo de la Garza, Gary P. Freeman, Charles W. Haynes, David Spener. *Illegal Mexican Migration & the United States/Mexico Border: The Effects of Operation Hold the Line on El Paso/Juarez*. U.S. Commission on Immigration Reform. July 1994. p. 25.

12 *Border Patrol Strategic Plan: 1994 and Beyond*. United States Border Patrol. July, 1994

crossing and more suited for enforcement.”¹³ The Border Patrol would come to refer to pushing border crossers into more remote areas as “funneling,” and increasingly claimed that rerouting this traffic was intentional, even as it became clear that the elusive goal of deterrence would never be met.



Warning sign on the landing mat border wall at Tijuana. 2018. Scott Nicol.

In 1996 the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) bolstered and incorporated into federal policy the Border Patrol’s Prevention through Deterrence strategy, providing significant additional resources. The Border Patrol was instructed to hire an additional 1,000 agents and 300 support personnel each year from 1997 through 2001. The Attorney General, who at the time oversaw the Immigration and Naturalization Service (the U.S. Department of Homeland Security and Customs and Border Protection would not be created until after the terrorist attacks of September 11, 2001), was instructed to “forward deploy” agents to the southern border “in order to provide a uniform and visible deterrent to illegal entry on a continuing basis.” It also mandated the construction of new border walls, including but not limited to a second and third layer of fencing, with a patrol road in between, alongside the existing landing mat wall that

13 Ibid. p.7.

ran from the Pacific Ocean inland for fourteen miles. This came to be referred to as “triple fencing.” The Attorney General was given the authority to condemn private property to build border walls, along with the power to waive the Endangered Species Act and the National Environmental Policy Act.¹⁴ The Clinton Administration moved forward to hire the additional agents and build the triple fence. In addition to San Diego, walls would go up in Nogales and Naco, Arizona. But President Clinton balked at the waiving of environmental laws, and Attorney General Janet Reno announced that the U.S. Immigration and Naturalization Service intended to fully comply with them. Nevertheless, the precedent of allowing the waiving of laws to build border barriers and associated roads and infrastructure had been established.

Mortal Danger as an Intentional Strategy

The Border Patrol’s 1994 Strategic Plan acknowledged that crossing the border could be treacherous: “Illegal entrants crossing through remote, uninhabited expanses of land and sea along the border can find themselves in mortal danger.”¹⁵ They also predicted that increased enforcement in and near urban areas would push people, or “funnel” them, into those areas. However, the Plan maintained that making crossing riskier would be an important component of creating the desired deterrent effect. The presumption was that just as the likelihood of apprehension at urban crossing points would deter unauthorized entries there, the likelihood of dying would stop people from attempting to cross through

¹⁴ The Illegal Immigration Reform and Immigrant Responsibility Act of 1996. Public Law 104-208. September 30, 1996.

¹⁵ *Border Patrol Strategic Plan: 1994 and Beyond*. United States Border Patrol. July, 1994

rugged mountains and brutal deserts. Looking back, former Immigration and Naturalization Service Commissioner Doris Meissner said, “We did believe that geography would be an ally to us. It was our sense that the number of people crossing the border through Arizona would go down to a trickle, once people realized what it’s like.”¹⁶ Left unmentioned was the reality that in order for the deadliness of crossing the desert to be a deterrent, many people would first need to die. Stories of migrants suffering and dying, their bodies scavenged by coyotes and vultures, would need to reach their home communities. Residents of towns south of the border would need to be able to recite a long list of the dead, to tell those preparing to cross that it was too dangerous. Suffering and death were, in this sense, the implicit intention.



Shrine near the border in New Mexico. 2014. Scott Nicol.

Border walls and enforcement did push cross-border traffic away from border cities and into the harsh terrain that Commissioner Meissner called an “ally.” This resulted in a sharp increase in the deaths of border crossers, and dying in the desert of dehydration and exposure did indeed become

¹⁶ Dunn, Timothy. *Blockading the Border and Human Rights: The El Paso Operation that Remade Immigration Enforcement*. University of Texas Press. 2009. p.205.

tragically linked with the migration experience. But knowledge of those deaths did not deter others. People determined to escape dangerous circumstances and improve their lives and those of their families kept coming. As more attempted to enter through deserts and mountains rather than crossing an invisible line between sister cities, more and more of them perished in the desert due to fatigue and exposure, lack of water and food, or getting lost or injured without the ability to call for help.

Though migrants' bodies were frequently found in remote locations, out of the view of most people and the press, the phenomenon of border crossing deaths was well documented at the time. Congress and successive administrations were informed of the results of their policies and legislation. In August of 2001 the U.S. General Accounting Office (now known as the Government Accountability Office) drafted a report on the impacts of the Prevention through Deterrence strategy, recounting that,

INS [Immigration and Naturalization Service] officials told us that as the traffic shifted, they did not anticipate the sizeable number that would still attempt to enter through these harsh environments. A study of migrant deaths along the southwest border concluded that while migrants have always faced danger crossing the border and many died before INS began its strategy, the strategy has resulted in an increase in deaths from exposure to either heat or cold.¹⁷

This finding did not lead to any significant change in strategy, and when the Border Patrol released its 2004 update to its National Strategy it reiterated Prevention through Deterrence. There was no direct mention of the deaths of hundreds of individuals who had sought to evade Border Patrol agents and

¹⁷ *INS' Southwest Border Strategy: Resources and Impact Issues Remain after Seven Years*. Report to Congressional Committees. United States General Accounting Office. August, 2001. p. 24.

circumvent fencing, just an oblique reference to its Border Safety Initiative.¹⁸ The Border Safety Initiative involved developing Public Service Announcements for Mexican media warning of the dangers of desert crossings; the erection of rescue beacons; and providing training in search and rescue to a small number of Border Patrol agents.¹⁹ Though well-intentioned, these efforts were wholly inadequate to the scale of the problem, as evidenced by the mounting death toll along the border.



Shrine near the border in New Mexico. 2014. Scott Nicol.

In the summer of 2006 the Government Accountability Office issued a report with the alarming title "Illegal Immigration: Border-Crossing Deaths Have Doubled Since 1995." They found that from the late 1980s through the mid-1990s there had been relatively few border crossing deaths, and each year the number of deaths had been decreasing. Many of those deaths had occurred in the vicinity of San Diego, and had been the result of individuals attempting to sprint across highways. After Prevention through Deterrence was implemented through

¹⁸ *National Border Patrol Strategy*. United States Border Patrol. September, 2004. p. 11.

¹⁹ Nuñez-Neto, Blas. *Border Security: The Role of the U.S. Border Patrol*. Congressional Research Service. May 10, 2005. pp. 15-16.

the building of walls and the amassing of agents in urban areas, the places where people died shifted, along with the locations of crossings, east into the mountains and deserts of California and Arizona. Deaths due to exposure, most notably heatstroke and dehydration, quickly overtook and surpassed traffic fatalities. And, as the report's title indicated, the number of bodies recovered increased dramatically. Hundreds were found each year, with the number climbing steadily despite the fact that there was no concurrent increase in apprehensions. The GAO concluded that,

The increase in deaths due to heat exposure over the last 15 years is consistent with our previous report that found evidence that migrant traffic shifted from urban areas like San Diego and El Paso into the desert following the implementation of the Southwest Border Strategy in 1994.²⁰

As disturbing as this report's findings were, the number of deaths cited by the GAO was certainly an undercount. The Border Patrol's official statistic did not include bodies that its personnel were not directly involved in recovering. Left out were remains recovered by local first responders, and of course the bodies that were never found, which researchers have suggested could be quite numerous owing to scavengers and the fast rate of decomposition in these environments.²¹ It also excluded those who died on the Mexican side before they reached the border. In 2001 scholar Wayne Cornelius factored in the number of remains recovered by the Mexican Ministry of Foreign Relations in terrain leading up to the border, and came up with a significantly higher total. He reported that in 1996 the remains of 7 individuals

20 *Illegal Immigration: Border-Crossing Deaths Have Doubled Since 1995; Border Patrol's Efforts to Prevent Deaths Have Not Been Fully Evaluated*. United States Government Accountability Office. August, 2006. p. 15.

21 De León, Jason and Michael Wells. *The Land of Open Graves: Living and Dying on the Migrant Trail*.

were recovered in the deserts and mountains of Arizona and Sonora, while in the year 2000 the bodies of 90 people were found. Confirmed deaths border-wide went from 87 in 1996 to 499 in 2000, a 474% increase. The main correlative that he identified was the shift from crossings in urban locations to remote deserts. Cornelius's conclusion was much the same as that of the later GAO report, and he wrote that "the incidence of deaths rose in tandem with the intensification of border enforcement."²² But the clear knowledge that hundreds of men, women, and children were suffering and dying year after year did not lead the Border Patrol to question or alter its strategy of Prevention through Deterrence.



Crosses in remembrance of deceased migrants attached to the border wall in Tijuana. 2018. Scott Nicol.

University of California Press, 2015.

22 Cornelius, Wayne. *Death at the border: Efficacy and Unintended Consequences of US Immigration Control Policy*. Population and Development Review, 27(4). December, 2001. p. 669

The REAL ID Act and the Waiving of Laws

This same unwillingness to examine border policy outcomes also characterized the next round of border wall construction. By 2005 most of the fourteen miles of California border wall called for by the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) had been completed. One notable exception remained, a canyon known locally as “Smuggler’s Gulch,” where the Tijuana River crosses the border from the south before flowing into the Tijuana Estuary. The Border Patrol complained that crossing the canyon required driving up and down a switchbacked road, and had proposed blasting the tops off of adjacent hills and creating a berm, resembling a massive earthen dam, to create a level span that the border wall and accompanying patrol road could be built upon. The California Coastal Commission had opposed this, concerned that erosion from the berm and associated construction would bleed sediment into the Tijuana Estuary, potentially burying vegetation and impacting water quality. In addition, the health of the estuary is dependent upon a cycle of inundation of sea water at high tide, alternating with fresh water pouring in from the Tijuana River. Deposition of sediment from the berm could raise the level of the estuary, putting it above the ocean’s reach. The California Coastal Commission determined that building the berm through Smuggler’s Gulch would thereby violate the Coastal Zone Management Act, and refused to give approval for the project.²³

At the same time environmental organizations sued, alleging that the Border Patrol had failed to comply with the National Environmental Policy Act (NEPA). NEPA mandates that likely impacts of federal projects on both the environment and human

communities be thoroughly explored, and multiple alternative means of achieving a project’s aims be examined, before a preferred alternative is chosen. This is particularly important when such a massive project will directly impact an area of critical environmental importance. The Tijuana Estuary is one of the last remaining estuarine ecosystems in California, with 2,531 acres protected within the combined Tijuana River National Estuarine Research Reserve, Tijuana River Slough National Wildlife Refuge, Tijuana River Valley County Park, and Border Field State Park. It is a key point along the Pacific Flyway, and more than 370 bird species, including 6 endangered species, either pass through on their annual migrations or call it home year-round. Compliance with NEPA would include examining the extent to which the border wall would either violate or comply with the Endangered Species Act, the Migratory Bird Treaty Act, and other relevant statutes. Organizations including the Sierra Club, Audubon Society, and the Center for Biological Diversity claimed the Border Patrol was attempting to bypass these legal procedures and protections.

and Recommendation on Consistency Determination, CD-063-03, October 2003.



Tijuana Estuary with the border wall and Tijuana, Mexico in the distance. 2008. Scott Nicol.

²³ California Coastal Commission, *W 13a Staff Report*

Some members of Congress saw the delay in border wall construction brought on by the California Coastal Commission and the separate environmental lawsuit as intolerable. They added a passage to the REAL ID Act of 2005 (Section 102), which gave the Secretary of Homeland Security the authority to waive laws to bypass legal obstacles and speed up the construction of patrol roads and border walls. The overall bill was, as its title implies, primarily concerned with tightening criteria for identification papers to combat identity fraud and make it more difficult for the undocumented to work in the United States. The breadth of the REAL ID Act's border waiver authority was unprecedented in the history of the United States.²⁴ ²⁵ The law's geographic reach was left undefined, so it could be applied to walls and patrol roads anywhere along either the U.S.-Mexico or U.S.-Canada borders. Unlike the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA), which allowed for the setting aside of two specific federal laws, the REAL ID Act gave the Secretary of Homeland Security the power to waive any law. While environmental laws such as the National Environmental Policy Act and the Endangered Species Act were publicly cited as the ones getting in the way of wall construction, other laws such as the Antiquities Act, the Religious Freedoms Act, the Farmland Policy Protection Act, and the Native American Graves Protection and Repatriation Act would also be brushed aside. The Secretary of Homeland Security also asserted the power to waive all local and state laws related to the subjects of the statutes listed in published waivers.

²⁴ Vina, Stephen R. and Todd B. Tatelman. "Sec. 102 of H.R. 418, Waiver of Laws Necessary for Improvement of Barriers at Borders." Congressional Research Service memo. February 9, 2005.

²⁵ Bear, Dinah. "Border Wall: Broadest Waiver of Law in American History." February 2009.

No one else in the government, not even the President of the United States, possessed this authority, and the REAL ID Act contained no provision for a waiver to be second-guessed or overturned. Court challenges to the waiver were restricted to those based on Constitutional grounds, precluding any appeals based on other legal and procedural grounds. Suits claiming that border walls facilitated by a waiver would violate a statute or inflict a particular harm were expressly forbidden. Once a lower court had issued a judgement regarding the Act's constitutionality, any challenges to that ruling would skip the federal appeals court and could only be heard by the Supreme Court. This created a very high legal hurdle, as each year the Supreme Court hears only a small percentage of the cases that are presented to it for discretionary review. These restrictions written into the law ensured that this unparalleled giveaway of legislative power to the executive branch would be extremely difficult to challenge despite its flouting the separation of powers.

The first REAL ID Act waiver was issued four months after President George W. Bush signed the bill into law. To build the fourteen miles of border wall called for by the Illegal Immigration Reform and Immigrant Responsibility Act, including the portion that would bury Smuggler's Gulch, Secretary of Homeland Security Michael Chertoff waived eight federal laws. These included the Coastal Zone Management Act, which had provided the basis for the California Coastal Commission's rejection of the wall, and the National Environmental Policy Act, the basis for the environmental organizations' lawsuit. In addition to the laws explicitly listed, this waiver and all subsequent ones would also set aside "all federal, state, or other laws, regulations and legal requirements of, deriving from, or related to the subject of" the

named laws.²⁶ With all laws that might protect the environment or local communities waived, construction on the border wall through Smuggler's Gulch proceeded.

In subsequent years Homeland Security Secretary Michael Chertoff issued four more waivers to build the border walls called for by the Secure Fence Act, legislation passed a year after the REAL ID Act. These waivers covered hundreds of miles along the U.S. southwest border. With each waiver, the list of laws brushed aside became longer, culminating with the "mega-waiver" of April 1, 2008 which allowed the government and its contractors hired to build border walls to ignore 36 federal laws and all state laws and local ordinances related to the subject of those laws. Even though the REAL ID Act waiver authority was originally directed at a narrow stretch of border wall through Smuggler's Gulch, it is now a de facto part of border wall construction. The Trump Administration has asserted that this blanket waiver continues to apply to all walls and infrastructure and a series of Secretaries of Homeland Security have issued three more waivers to expedite efforts to build additional border walls and replace existing ones in California, New Mexico and South Texas.

In Congress' granting of the waiver authority and the willingness of presidential administrations to use it, we see the same calculation that was made earlier when the Supreme Court allowed checkpoint encroachments on civil rights for the sake of patrolling the border: the project of border enforcement and building walls is deemed so urgent that it warrants stripping border residents and the borderlands of protections that the rest of the country enjoys. Waiving laws, in particular

NEPA, also relieves the Department of Homeland Security of the responsibility to consider less-damaging alternatives, so they have never been required to analyze the impact and efficacy of the walls they build as compared to other alternatives. Just as the Border Patrol's foundational strategy of Prevention through Deterrence was embraced without being thoroughly studied, the tactic of erecting walls to achieve deterrence has gone unexamined and untested, and the extensive impacts of walls on border communities and the environment have been ignored or glossed over.

²⁶ Federal Register /Vol. 70, No. 183 / September 22, 2005 /Notices 55623



Border wall and abandoned jacket in Cameron County, Texas. 2017. Scott Nicol.

The Secure Fence Act and the Impacts of Walls across the Southwest Border: 2006 - 2016

In 2005 and 2006 the U.S. House and Senate passed distinct immigration bills. The Senate bill offered a path to legal status for undocumented immigrants as well as an increase in the numbers of guest workers, while the House bill established new ways to penalize the undocumented and ramped up enforcement. What the bills had in common was hundreds of miles of new walls along the U.S.-Mexico border. Negotiators from each branch of Congress needed to come together to develop a compromise bill to send to President Bush, but the House of Representatives refused to appoint any negotiators, causing the bills to lapse unreconciled. A few weeks before the 2006 mid-term elections the

House and Senate revived and quickly passed only the border wall component of the bills, leaving out everything else. The resultant Secure Fence Act did not address the status of immigrants, but expanded the border wall mandate from 14 miles near San Diego to 700 miles along the 1,900 mile long U.S. southern border. Because the REAL ID Act was already in place, the Secretary of Homeland Security already had the authority to waive any and all federal, state and local laws to build the Secure Fence Act's walls and patrol roads.

The Secure Fence Act made grand claims regarding

the efficacy of border walls. Along with increased surveillance, the approximately 700 miles of barrier along the U.S.-Mexico border that it called for were intended to “achieve and maintain operational control over the entire international land and maritime borders of the United States.” Operational Control was defined in the bill as “the prevention of all unlawful entries into the United States, including entries by terrorists, other unlawful aliens, instruments of terrorism, narcotics, and other contraband,” putting forward for the first time the incredible goal of blocking all border crossers.²⁷ What border walls would look like and where they would go were described with a fair amount of detail; the surveillance component was dispensed with in a sentence that listed a few possibilities. But together these tactics would, it was claimed in the text of the bill, make it impossible for any contraband or any person without permission to enter the United States even along parts of the southwest border that remained unwalled, not to mention the much longer Canadian border and the entire U.S. coastline.

Prior to the Secure Fence Act the Border Patrol used a more realistic metric for success which they called Effective Control. By this standard, agents should be able to detect entries into the United States, “identify and classify” the entry to determine to what extent it posed a threat, respond, and then “bring events to a satisfactory law enforcement conclusion.” A few weeks after President Bush signed the Secure Fence Act, the Department of Homeland Security released a “Secure Border Strategic Plan” asserting that 284 miles of the U.S.-Mexico border were under Effective Control, while only 12 out of 3,987 miles of the U.S.-Canada border met that less stringent metric.²⁸ How walling off the southwest border would bring about some degree of control of the northern border, which the Department of Homeland Security apparently viewed as having far more miles that were out of control, was left unsaid.

The walls called for by the Secure Fence Act went up starting in 2007, beginning with the walls separating San Diego from Tijuana, whose construction had been slowed by the legal challenges that the REAL ID

Map showing the locations of the border walls in 2009, when the construction of the Secure Fence Act’s border walls was coming to a close. **U.S. Customs and Border Protection.**



27 The Secure Fence Act of 2006. Public Law 109-367. October 26, 2006.

28 *Secure Border Strategic Plan*. U.S. Department of Homeland Security. December 1, 2006. pp. 14-15.

Act was intended to sweep aside. Next came walls in increasingly remote parts of California, Arizona, and New Mexico, where initial walls and the Prevention through Deterrence strategy had funneled cross-border traffic. Texas received walls last, and despite accounting for 1,200 miles of the 1,900 mile border it received the least, due to protracted legal fights to acquire private property from landowners who did not want to give up their lands and homes to a border wall. For every section of border wall, which ultimately added up to 654 miles in length, the REAL ID Act would be invoked to waive laws to hasten construction. Damage to the environment that could have been avoided or mitigated, or would be so grave that it should have brought construction on a given part of the wall to a halt, was simply ignored. Meaningful consultation with stakeholders which might have informed plans for walls or led to significant changes in location or design did not occur. With a long list of deleterious impacts that Customs and Border Protection was not obligated to address, the Secure Fence Act's border walls resulted in significant harm to communities and the environment across the Southwest, from San Diego to South Texas.



Friendship Park, Tijuana. 2018. Scott Nicol.

Encroaching upon Public Spaces at Friendship Park

Overlooking the Tijuana Estuary to the north and Playas de Tijuana to the south, Friendship Park was established at the coastline where the two countries met and intended to symbolize the bonds of friendship that link bi-national communities. A paved circle surrounds the first border survey monument, marking where the border begins in the West. For generations families and friends divided by that border, unable to cross due to immigration status, have come to the site to enjoy a day at the beach in proximity to one another. Initially only a few strands of barbed wire marked the border line, but in the 1990s they were replaced with scrap metal border walls. At the monument rusting steel mesh still allowed for limited contact – fingers squeezed through the tight metal squares to touch loved ones. Following passage of the Secure Fence Act, the scrap metal fence was replaced with a bollard border wall, made of six inch wide steel posts spaced four inches apart. These stood eighteen feet tall, with a steel plate welded to the top meant to make them more difficult to climb over. This wall dropped down the beach into the Pacific, dividing the incoming waves. To prevent contact between visitors to either side, tighter mesh was added, filling in the space between bollards.

In 2009 Customs and Border Protection built a second layer of wall north of the first, enclosing the United States half of Friendship Park's circular plaza. Whereas previously people wishing to access the park and see friends and family through the rusting wall were generally free to do so, now a Border Patrol agent had to unlock a gate. This would only occur on weekends from 10am to 2pm. Another door was installed to allow for maintenance of the wall and the border monument, which after the reinforcement of the park stood entirely on the Mexican side. On rare events staged for maximum public relations benefit, this “door of hope” was opened, and pre-screened family members



Image of clasped fingers painted on the border wall at Friendship Park, Tijuana. 2018. Scott Nicol.

COMMUNION AT THE BORDER WALL

In the summer of 2008 Reverend John Fanestil began serving Communion at Friendship Park, passing pieces of tortilla through the rusting steel of the border wall. People unable to cross the border to see loved ones on the other side would meet there, talking, laughing, and poking fingers through the mesh to allow for the tiniest bit of human contact. Reverend Fanestil had heard of instances in which families who had traveled for hours to see a deported parent were told by Border Patrol agents, apparently arbitrarily, that the park was closed and they would have to leave. He was concerned that preparations to reinforce the wall and erect a second layer would make this occur more often, and he hoped that the presence of clergy would prevent that. Families need both spiritual comfort and physical contact, he felt. Services were held through the wall every week, but in 2009 congregants were met by a phalanx of Border Patrol agents and a mass of shouting Minutemen vigilantes. The tortillas that he consecrated and passed through the border wall were, he was told, impermissible contraband. When he attempted to perform Communion anyway Reverend Fanestil was handcuffed and detained, as a choir sang and vigilantes jeered. Not long after this incident, the area was closed off, and access was greatly restricted. The new border wall was designed to ensure that it would be impossible to pass tortillas through it, or for people to touch fingers.

were permitted to hug one another in the doorway for a few minutes. In early 2018 it was announced that there would be no more “door of hope” events, and that no more than 10 people at a time would be allowed into Friendship Park for a maximum of 30 minutes each. Photography would also be banned, and access to the U.S. half of a binational garden planted by community members would end.²⁹

Carving a Wall through the Otay Mountain Wilderness Area

Fourteen miles inland from the Pacific Ocean lies the Otay Mountain Wilderness Area. Federally designated as a roadless wilderness, Otay Mountain was set aside to preserve one of the last remaining stands of Tecate cypress, a tree that clings to its steep, rugged mountainsides, soaking up coastal fog. Tecate cypresses are the host plant for the Thorne’s hairstreak butterfly, an insect nominated for listing under the Endangered Species Act that can only be found within the boundaries of the Otay Mountain Wilderness Area. Following the passage of the Secure Fence Act the Wilderness Area was targeted for border walls, despite the prior assessment of Border Patrol Spokesperson Richard Kite that, “At the mountain range, you simply don’t need a fence. It’s such harsh terrain it’s difficult to walk, let alone drive. There’s no reason to disrupt the land when the land itself is a physical barrier.”³⁰

When this stretch of border wall was built, it dropped down into deep canyons, and the accompanying patrol road switch-backed up and down their sides, requiring the extensive use of explosives to

²⁹ Levin, Sam. “Outrage as US border agents cut visit times for divided families.” *The Guardian*. February 16, 2018.

³⁰ Marosi, Richard. “\$57.7-million fence added to an already grueling illegal immigration route.” *Los Angeles*



Otay Mountain Wilderness Area, California. 2010. Scott Nicol.

carve away 530,000 cubic yards of stone. More than 100 Tecate cypresses were reportedly cut down, along with other vegetation that anchored the soil on steep slopes.³¹ Debris tumbled downhill into the Tijuana River and channels that feed into it. Prior to construction the Environmental Protection Agency found that this erosion would likely violate the Clean Water Act.³² The Department of the Interior, which manages the Wilderness Area, also weighed in, stating that construction and maintenance of the wall, as well as the Border Patrol activities that would come after it was finished, would harm threatened and endangered species for many years to come.³³ Instead of addressing these concerns, Secretary of Homeland Security Michael Chertoff used the REAL ID Act to waive the Clean Water Act, the Endangered Species Act, the Otay Mountain Wilderness Act, and other environmental laws.

Times. February 15, 2010.

³¹ Davis, Rob. “A Barren Promise at the Border.” *Voice of San Diego*. October 22, 2009.

³² Blazej, Nova. “Subject: Draft Environmental Impact Statement for the Proposed Construction, Operation, and Maintenance of the Proposed Tactical Infrastructure, U.S. Border Patrol San Diego Sector, California (CEQ# 20070555).” Letter from the United States Environmental Protection Agency to U.S. Customs and Border Protection. February 25, 2008.

³³ Sanderson Port, Patricia. “Subject: Review of

The on-the-ground damage remained, but from a strictly legal standpoint these concerns were thereby rendered moot, and there would be no way to compel Customs and Border Protection to either avoid engaging in environmentally destructive acts or provide mitigation to repair or offset some measure of the damage.

Threatening the Sovereignty of the Tohono O’odham Nation

Prior to the existence of either the United States or Mexico, the Tohono O’odham lived within a vast swath of the Sonoran desert, an area extending from the Sea of Cortez north to present day Tucson, from the mountains near the Arizona / New Mexico line west into what is now the Barry M. Goldwater bombing range. Following the conclusion of the Mexican-American War and the Gadsden Purchase, the borderline between the two countries bisected their territory. Today the Tohono O’odham Nation’s reservation is much smaller than their former range, but still ranks as the second largest in the United States, and its southern boundary abuts Mexico for seventy-five miles. This arid landscape could not support a dense population, so today population centers within the reservation are small, and it takes hours of driving down rough roads to reach homes in its more remote corners. There are also many tribal members who live in Mexico, on lands that were formerly part of their territory.

The landscape which they have long inhabited is sacred, irrespective of borderlines drawn relatively

the Draft Environmental Impacts Statement (EIS) for Construction, Operation, and Maintenance of Tactical Infrastructure, U.S. Border Patrol, San Diego Sector, San Diego County, California.” Letter from the United States Department of the Interior to San Diego Sector Tactical Infrastructure EIS c/o e2m. March 12, 2008.

recently. Tohono O’odham walk south for eight days, making an arduous annual pilgrimage to the Sea of Cortez to deposit corn pollen and prayer sticks and gather kernels of salt from the beach, in a religious obligation intended to bring monsoon rains north into the desert. On the Arizona side of the border stands Baboquivari Peak, home of the Creator and site of pilgrimage and purification. Even without human-made barriers the maintenance of these important practices has never been easy. Tribal members who live north of the U.S.-Mexico border need to travel unimpeded to the Sea of Cortez, and those who live in Mexico need to be able to reach Baboquivari Peak, in order to maintain their religious practices. Before the militarization of the border, tribal members born on either side of the line were free to travel back and forth to see family, access reservation clinics and schools, or visit religious sites.³⁴

As walls went up and agents lined urban portions of the border in the late 1990’s and early 2000’s, an unprecedented amount of cross-border traffic was funneled through the Tohono O’odham Nation.³⁵ Smugglers began moving through, scaring residents who lived in remote areas. In some cases this simply meant seeing strangers whose intentions were unknown in places where one might have a reasonable expectation of solitude. But there were also an increasing number of instances of burglary and theft, of stolen vehicles, and of assaults. With a high rate of poverty and limited prospects for employment, some tribal members were enticed to

34 Luna-Firebaugh, Eileen M. “The Border Crossed Us: Border Crossing Issues of the Indigenous Peoples of the Americas.” *Wicazo Sa Review*. Vol. 17. No. 1. Spring 2002. p. 166.

35 *Final Environmental Assessment for the Installation of Permanent Vehicle Barriers on the Tohono O’odham Nation*. Office of Border Patrol Tucson Sector, Arizona. U.S. Customs and Border Protection. U.S. Department of Homeland Security. October, 2006. p. 1-7.

stash and/or transport narcotics. Tribal authorities devoted time and resources to combating crime linked to cross-border smuggling, even arresting the relatives of some elected local officials.³⁶

Migrants crossing the border were also rerouted through the reservation. As a result, between 2003 and 2006 the number of bodies recovered by the Border Patrol within the reservation increased by a staggering 264%.³⁷ Following passage of the Secure Fence Act the number of crossings, and associated deaths, continued to climb. Once walls mandated by the law were in place approximately two-thirds of those who died crossing into Arizona perished within the bounds of the Tohono O’odham Nation.³⁸

In response to the increase in cross-border traffic, Border Patrol agents and resources poured into the area. Forward Operating Bases modeled after military facilities built in remote parts of Afghanistan were established so that agents could live on-site for days or weeks at a time. Checkpoints were erected on all roads leading out of the reservation. When David Aguilar, who at the time was the Border Patrol’s Tucson Sector Chief, was asked what constituted grounds for an agent to stop and search a vehicle within the reservation he answered curtly, “Proximity to the border, route of travel, type of vehicle, time of night.”³⁹ The entire Tohono O’odham

Nation lay within the 100-mile wide border zone so any vehicle heading north at night was, by Sector Chief Aguilar’s definition, de facto sufficiently suspicious to merit a stop. Reservation residents alleged that they were stopped, harassed, and sometimes assaulted by Border Patrol agents. Those who were unable to provide proof of U.S. citizenship could be taken into custody and ultimately deported. Many tribal members were born at home and lacked birth certificates, and the tribal government asserted that some who were born north of the line were deported to Mexico for lack of paperwork.⁴⁰ When they filed formal complaints alleging mistreatment there was no indication of any investigation, or whether the agents involved had been disciplined.⁴¹ Former Tohono O’odham Vice Chairman Henry Ramon said that he and others felt as though “Our land is an occupied war zone.”⁴²

Customs and Border Protection also installed just over 50 miles of vehicle barriers, consisting of six-foot-tall concrete-filled pipes, along the 76 miles of the southern boundary of the Tohono O’odham Nation. These were intended to stop off-road vehicles from crossing without creating a significant impediment to wildlife movement, water, or people on foot. Over 7,000 abandoned vehicles, many of which had been stolen before being used to smuggle contraband

³⁶ *Border Security: Agencies Need to Better Coordinate their Strategies and Operations on Federal Lands*. United States General Accounting Office. GAO-04-590. June, 2004. p. 12-13.

³⁷ *Final Environmental Assessment for the Installation of Permanent Vehicle Barriers on the Tohono O’odham Nation*. Office of Border Patrol Tucson Sector, Arizona. U.S. Customs and Border Protection. U.S. Department of Homeland Security. October, 2006. p. 1-7, 1-8.

³⁸ Jimenez, Maria. *Humanitarian Crisis: Migrant Deaths at the U.S.-Mexico Border*. American Civil Liberties Union report. October 1, 2009. p. 44.

³⁹ *Tragedy Along the Arizona-Mexico Border: Undocumented Immigrants Face the Desert*. Briefing before the Arizona Advisory Committee to the U.S. Commission on Civil Rights.

Tucson. August 23, 2002. p. 37.

⁴⁰ Resolution of the Tohono O’odham Legislative Council (Support for United States Legislation Providing Recognition of the Tohono O’odham Residing in Mexico and a Clarification of the Right to Freely Pass and Re-pass the International Boundary Existing between Mexico and the United States for all Tohono O’odham). Resolution no. 98-063. February 24, 1998.

⁴¹ *In Hostile Terrain: Human Rights Violations in Immigration Enforcement in the US Southwest*. Amnesty International. 2012. pp. 30-32.

⁴² *Tragedy Along the Arizona-Mexico Border: Undocumented Immigrants Face the Desert*. Briefing before the Arizona Advisory Committee to the U.S. Commission on Civil Rights. Tucson. August 23, 2002. p. 14.

or persons, were recovered in a single year, indicating something of the scale of cross-border vehicle incursions.⁴³ The tribal government initially supported the vehicle barriers, while voicing strong opposition to the installation of taller, less permeable pedestrian border walls. That support was conditional, predicated on the understanding that in addition to terrorizing residents of the reservation, vehicles tearing across the Sonoran desert were inflicting tremendous ecological damage. The Nation therefore called upon Customs and Border Protection to do its utmost to minimize the environmental impacts of its barriers and to comply with federal environmental laws such as the National Environmental Policy Act.⁴⁴

Instead in April of 2008 the Secretary of Homeland Security invoked the REAL ID Act to waive every law that might conceivably slow construction for vast swaths of the U.S. southern border, including the 76 miles that passed through the Tohono O’odham Nation. In addition to environmental laws, then-Homeland Security Secretary Chertoff waived the Antiquities Act, which provides protection



Vehicle barrier on the Tohono O’odham Nation. 2010. Kenneth Madsen.

for historic sites, the American Indian Religious Freedom Act, which provides for access to sacred sites, and the Native American Graves Protection and Repatriation Act. In the rush to erect barriers, established practices for construction projects in archaeologically rich environments were ignored. Sites associated with the Hohokam, a culture with which the Tohono O’odham claim an ancestral connection, were needlessly damaged. Former Tribal Chairman Ned Norris Jr. told members of the U.S. House of Representatives about one particularly disturbing instance in which, he said, “fragments of human remains were observed in the tire tracks of the heavy construction equipment. Barriers and the border road now cross the site.”⁴⁵ This would likely be a violation of the Native American Graves Protection and Repatriation Act if that law was not nullified by the waiver. Chairman Norris informed Congress that

⁴⁵ Norris Jr., Ned. “Written testimony of the Honorable Ned Norris Jr., Chairman Tohono O’odham Nation to the to the Subcommittee on Fisheries, Wildlife, and oceans and Subcommittee on National Parks, Forests, and Public Lands of the House Committee on Natural Resources.” Joint Oversight Hearing Walls and Waivers: Expedited Construction of the Southern Border Wall and

⁴³ *Border Security: Agencies Need to Better Coordinate their Strategies and Operations on Federal Lands*. United States General Accounting Office. June, 2004. p. 16.

⁴⁴ Resolution of the Tohono O’odham Legislative Council (Approving Border Vehicle Barrier Design Pursuant to Resolution No. 04-095, “Supporting Vehicle Barriers and All-weather Road Project Along the International Boundary Within the Tohono O’odham Nation”). Resolution No. 06-465. July 19, 2006.

due to the waiving of laws and resultant damage the Tohono O’odham Nation had rescinded its support for vehicle barriers. The Nation would go on to sign on to an Amicus Curiae brief supporting a challenge to the constitutionality of the waiver provision brought by environmental groups. While they wanted to see an end to the cross-border traffic that the Border Patrol was funneling through their territory, the damage wrought by the roads and barriers that had been erected was worse than they were prepared to accept.

Fragmenting Sonoran Pronghorn Habitat

In 1997 the Border Patrol apprehended 512 people on Department of Interior (DOI) lands in all of southern Arizona. Just three years later, with the Prevention through Deterrence strategy in place and the Illegal Immigration Reform and Immigrant Responsibility Act swelling the number of agents in cities such as El Paso and San Diego, the Border Patrol apprehended 113,000 migrants in the wildlife refuges and national monuments that line Arizona’s southern border.⁴⁶ In response, in the years leading up to the Secure Fence Act of 2006 the Border Patrol built fifteen miles of landing mat pedestrian border wall and thirty-three miles of vehicle barrier.⁴⁷

Collateral Impacts to Communities and the Environment. U.S. House of Representatives Committee on Natural Resources. Subcommittee on National Parks, Forests and Public Lands. Subcommittee on Fish, Wildlife and Oceans. April 28, 2008.

⁴⁶ *Border Security: Agencies Need to Better Coordinate Their Strategies and Operations on Federal Lands*. United States Government Accountability Office. June 2004. p. 17.

⁴⁷ Spangle, Steven L. *Biological Opinion for the Permanent Vehicle Barrier Project in the Barry M. Goldwater Range and Cabeza Prieta National Wildlife Refuge, Arizona*. United States Department of the Interior, US Fish

Existing roads were improved and new roads were created. Because the border in these areas is so remote, it could take hours for an agent driving from a Border Patrol station in town to reach the part of the border that they were to patrol. For this reason Forward Operating Bases that allowed agents to spend up to a week at a time on-site were built in the Cabeza Prieta National Wildlife Refuge and the Organ Pipe Cactus National Monument.⁴⁸

This is a brutal landscape for humans, but critical habitat for the creatures that have evolved to live in it. The endangered Sonoran pronghorn is one such animal, moving in small herds across large expanses of desert in search of water and seasonally available forage. It can sprint faster than any mammal in North America and is extremely skittish, taking off like a shot at the slightest disturbance. North of the border just over 200 Sonoran pronghorn find a home in the Organ Pipe Cactus National Monument, Cabeza Prieta National Wildlife Refuge, Kofa National Wildlife Refuge and the Barry M. Goldwater Range; south of the border a population 4 to 5 times as large roams the El Pinacate y Gran Desierto de Altar Biosphere Reserve.⁴⁹ With little water and sparse vegetation, this bi-national landscape would never be capable of supporting dense populations, so it is even more important that pronghorn are able to disperse over large unbroken areas to locate patchily distributed forage that provides important nutrition required for healthy reproduction. One of the biggest threats to their continued existence is the fragmentation of their habitat. Roads and border barriers can prevent

and Wildlife. September 15, 2006. p. 7.

⁴⁸ Segee, Brian P., and Jenny Neeley. *On the Line: The Impacts of Immigration Policy on Wildlife and Habitat in the Arizona Borderlands*. Defenders of Wildlife. 2006. p. 15.

⁴⁹ Devoid, Alex. “Back from the brink, the Sonoran pronghorn now roam an increasingly political landscape.” *The Arizona Republic*. March 27, 2018.

them from accessing the resources that they need to survive, especially during times of drought, and can permanently sever important genetic links between the U.S. and Mexican populations.⁵⁰

Following passage of the Secure Fence Act the



Pedestrian wall in the Organ Pipe Cactus National Monument. 2012. Scott Nicol.

Bush Administration moved to erect border walls in these remote parts of Arizona. Some would be vehicle barriers, while others would be pedestrian walls. Fifteen-foot tall pedestrian border walls planned for portions of the Organ Pipe Cactus National Monument would pose an insurmountable obstacle for Sonoran pronghorn. Pronghorn are runners, not jumpers (they will more readily crawl under a properly designed fence rather than attempt to jump over it), and the National Park Service had previously found that a far less formidable barbed-wire fence through their territory posed a significant obstacle to their movement.⁵¹ A REAL ID Act waiver covering a vast portion of the border, including the Organ Pipe Cactus National Monument and

⁵⁰ *In the Shadow of the Wall Part II: Borderland Conservation Hotspots on the Line*. Defenders of Wildlife. 2018.

⁵¹ *Proposed Vehicle Barrier Environmental Assessment*. Organ Pipe Cactus National Monument / Coronado National Memorial. National Park Service. April, 2003.

Cabeza Prieta National Wildlife Refuge, was issued to hasten construction. With the National Environmental Policy Act and the Endangered Species Act waived, the impacts that border walls and associated patrol roads would have on the Sonoran pronghorn was not a factor that Customs and Border Protection would be required to take into account.

U.S. and Mexican populations of Sonoran pronghorn were increasingly cut off from one another, preventing the genetic exchange necessary to avoid inbreeding and ensure healthy populations. Forward Operating Bases and new roads (both Border Patrol roads and public highways) further degraded and fragmented their habitat, as these animals are sensitive to and tend to avoid the sights and sounds of patrol vehicles and other unnatural human-caused disruptions. Repeated disturbance and the expenditure of energy to flee can expend crucial energy reserves and put dangerous stress on the animals, especially during times of drought. Regularly patrolled routes may be avoided by pronghorn, so a road can potentially cut off or discourage the use of territory nearly as effectively as a wall. U.S. Fish and Wildlife Service, the federal agency responsible for protecting endangered species and for managing Kofa and Cabeza Prieta National Wildlife Refuges, observed that the traffic, diesel generator noise, and 24 hour flood lights associated with Forward Operating Bases caused Sonoran pronghorn to abandon critical habitat.⁵² U.S. Fish and Wildlife was forced to take drastic measures to save the species, going so far as to capture the remaining handful of individuals and establish a captive breeding program. This program has helped their numbers to increase, and each year some captive animals are released into the wild. But

⁵² *Biological Opinion / Section 7 Letter RE: Tactical Infrastructure Maintenance and Repair Program*. United States Fish and Wildlife Service. November 6, 2012. p. 38.

outside of captivity, they are forced to navigate an increasingly militarized landscape. In 2009 biologists witnessed the abandonment of land in the Organ Pipe Cactus National Monument that had been managed to maximize forage for pronghorn, due to heavy Border Patrol traffic on a nearby patrol road. After moving into less suitable terrain three does lost their fawns.⁵³

Walls Worsen Flooding in Organ Pipe Cactus National Monument

As the U.S.-Mexico border line runs from the Colorado River to the boot heel of New Mexico, it crosses numerous streams, washes, and drainages that snake through the landscape and channel water from Arizona to Sonora or vice versa. In the desert these may be dry for portions of the year, but when winter or summer monsoon rains come, they surge to life, carrying a turbid mix of water, soil, and vegetative debris. In 2008, Customs and Border Protection set out to build pedestrian border walls along much of Arizona's southern boundary, which intersected these waterways. One of the conservation areas in this region targeted for construction was the Organ Pipe Cactus National Monument, which straddles the Lukeville Port of Entry. The Organ Pipe Cactus National Monument was established by President Franklin D. Roosevelt in 1937 with the declaration that "warning is hereby expressly given to all unauthorized persons not to appropriate, injure, destroy, or remove any feature

⁵³ Spangle, Steven L. "Reinitiation of Formal Consultation on the SBInet Ajo-1 Tower Project, Ajo Area of Responsibility, U.S. Border Patrol, Tucson Sector, Arizona; Proposed Construction, Operation, and Maintenance of a Forward Operating Base, Organ Pipe Cactus National Monument, Pima County, Arizona." United States Department of the Interior. United States Fish and Wildlife Service. September 16, 2011. p. 16.

of this monument."⁵⁴

When pedestrian walls were proposed for the Roosevelt Easement adjacent to the Organ Pipe Cactus National Monument, the National Park Service expressed concerns that "the fence would impede the conveyance of floodwaters across the international boundary; Debris carried by flash floods would be trapped by the fence, resulting in impeded flow and clean-up issues." They predicted that the barrier would result in deep pooling and flowing water that would damage the environment and patrol roads.⁵⁵

Customs and Border Protection and the U.S. Army Corps of Engineers assured the National Park Service that the walls would be designed to avoid any obstruction of water in the washes that they would cross. In environmental assessment conducted by CBP for the project that issued "a finding of no significant impact," CBP stated that, "in addition to security criteria, the fence would "not impede the natural flow of water." It would be "designed and constructed to ensure proper conveyance of floodwaters and to eliminate the potential to cause backwater flooding on either side of the U.S.-Mexico border." Further, Customs and Border Protection (CBP) "will remove debris from the fence within washes/arroyos immediately after rain events to ensure that no backwater flooding occurs."⁵⁶ In an attempt to address this concern, grates with gaps six inches high and two feet wide were built into the bottom of the fifteen-foot tall steel mesh walls in

⁵⁴ Proclamation 2232—Organ Pipe Cactus National Monument. President Franklin D. Roosevelt. April 13, 1937.

⁵⁵ *Effects of the International Boundary Pedestrian Fence in the Vicinity of Lukeville, Arizona, on Drainage Systems and Infrastructure, Organ Pipe Cactus National Monument, Arizona.* U.S. Department of the Interior, National Park Service. August 2008.

⁵⁶ *Preliminary draft environmental assessment for the installation of 4.2 miles of pedestrian fence.* U.S. Depart-

sections with low water crossings. A few weeks after the wall's completion, a monsoon storm brought a predictable flooding event with between 1-2 inches of rain. Mesh and grates built across the waterways quickly became clogged with debris, plugging gaps and turning the border wall into an impermeable dam. In some washes the water behind the wall rose to a depth of seven feet. A blocked wash near the Lukeville, Arizona border crossing spilled over, pouring water into the port of entry and causing millions of dollars of damage.

The following year CBP hired Baker Engineering to follow the border from El Paso to the Pacific Ocean, looking at every point where tactical infrastructure intersected with water courses. Baker reported that, contrary to pre-construction promises, "fencing obstructs drainage flow every time a wash is crossed."⁵⁷ The firm proposed a variety of retrofits, including using riprap to control erosion, paving patrol roads at low water crossings, and installing between fifty and sixty massive gates in the border wall that could ostensibly be opened ahead of a flood using powerful winches. Despite the cost and effort expended on the retrofits, in 2010 the border wall again dammed water at Organ Pipe Cactus National Monument. Monitors there found that where gates had not been installed the walls blocked the flow of sediment along with the water that it was suspended in, causing streambeds behind the border wall to rise.⁵⁸

During the summer monsoon of 2011, a section

ment of Homeland Security. 2008.

⁵⁷ *SBI-TI PF 225 and VF 300 Border Fence Projects Technical IPT Final Report*. Michael Baker Jr., Inc. May 2009. p. 11.

⁵⁸ *2011 Monitoring Report. Channel Morphology Related to the Pedestrian Fence*. Organ Pipe Cactus National Monument & Coronado National Memorial. April 2012.

of border wall below Organ Pipe Cactus National Monument that had recently been retrofitted with a gate again prevented the free passage of floodwaters when the Border Patrol failed to open it. Closed, the gate was like the bollard border walls deployed throughout much of the southern border: six-inch-wide steel posts spaced a few inches apart. Debris carried by a flash flood plugged the gaps between posts, just as had previously occurred with mesh border walls, making them impermeable. Water backed up and spread out on either side of the natural channel. As more debris built up and the water rose, it cascaded over the top of



Border wall washout in Organ Pipe Cactus National Monument. 2011. National Park Service.

the obstruction, falling with enough force to gouge out the wall's foundation. The combination of the pressure behind the wall and the undermining of its foundation then caused a forty-foot-wide section of steel mesh next to the flood gate to blow out and be washed downstream.⁵⁹ CBP asserted that the destruction was caused by "a breakdown in communications" that resulted in the gate not being raised rather than any inherent design flaw, and that it was a singular event that would not be repeated.⁶⁰ But in 2014 a similar rainstorm again caused flooding that impacted a section of border wall near Nogales, Arizona that, like the section at Organ Pipe Cactus National Monument, had already been retrofitted with a gate. Just as in 2011, the gate was not opened, debris backed up against the wall, and as a result, a sixty-foot-wide section of border wall was torn loose and swept away.⁶¹

Border Walls as Dams in Ambos Nogales

That was not the first time the border wall caused a flood in Nogales. The Arizona city shares a border with Nogales, Sonora, and a shared history, culture, and kinship has led to residents to refer to the sister cities collectively as Ambos Nogales, or Both Nogales. The border line was originally marked by a broad east-west avenue, which early in the twentieth

⁵⁹ 2011 Monitoring Report. *Channel Morphology Related to the Pedestrian Fence*. Organ Pipe Cactus National Monument & Coronado National Memorial. April 2012. p. 25. See also McCombs, Brady. "Rain washes away 40-feet of US-Mexico border fence." *Arizona Daily Star*. August 10, 2011.

⁶⁰ Recinos, Scott. "Re: Subject: News Articles, Lukeville Flooding." Department of Homeland Security email. August 19, 2011. Obtained by the Sierra Club via Freedom of Information Act request.

⁶¹ Galvan, Astrid. "Downed Border Fence Caused City Damage." *Associated Press*. September 23, 2014.

century was marked by a chain-link fence. In the 1990s this was replaced with the landing mat walls that preceded the Secure Fence Act. Hoping to avoid the appearance of exclusion and hostility that a barrier of rusting scrap metal might evoke, at the port of entry a quarter-mile of the wall was made of salmon-colored concrete inlaid with decorative tiles.⁶² Following passage of the Secure Fence Act the landing mats to either side were replaced with bollards, but the colored concrete section remained unchanged.



Flooding in Nogales, Sonora. 2008. Border Patrol.

The same 2008 storm that caused flooding in Organ Pipe Cactus National Monument also hit Nogales. There the water drains from south to north, and when water flowing downhill from Sonora to Arizona hit the concrete wall it acted as a dam, as did the adjacent bollards. Making matters worse, Customs and Border Protection had built a five-foot-tall wall with a pair of metal gates in an underground storm drain. This restricted the flow of water through the tunnel, increasing the pressure

⁶² Verhovek, Sam Howe. "Tiny Stretch of Border, Big Test for a Wall." *The New York Times*. December 8, 1997.

to the point that the ceiling heaved up and water poured into the street from below.⁶³ Photos taken from one of the Border Patrol's lookout towers showed water above the tops of the door-frames of shops on the Mexican side of the wall, but only ankle deep on the U.S. side. Tragically, two people drowned in the deep stormwaters, 575 Mexican homes and businesses, and 45 cars were damaged at an estimated cost of \$8 million.⁶⁴

Building a Wall through a River & the San Pedro Waiver

Originating in the Sierra Manzanal Mountains around thirty miles south of the international boundary, the San Pedro River flows north into Arizona, watering a ribbon of verdant riparian habitat in an otherwise arid landscape. One of the last free-flowing rivers in the desert southwest, the San Pedro supports a host of wildlife including fifteen "special-status" species of conservation concern. These include the endangered Southwestern willow flycatcher, the threatened Western yellow-billed cuckoo, and two endangered fish, the Spikedace and Loach minnow. In addition, the San Pedro is one of the most biologically diverse watersheds in the United States.⁶⁵ The hemispheric importance of this watershed is also underscored by a 1998 study that documented the San Pedro

⁶³ *Morley Tunnel, Nogales Arizona Site Visit*. U.S. International Boundary and Water Commission. August, 2008. Obtained by the Sierra Club via Freedom of Information Act request.

⁶⁴ McCombs, Brady. "Mexico ties flooding in Nogales to U.S. Border Patrol-built wall." *Arizona Daily Star*. July 23, 2008.

⁶⁵ Boykin, et. al. "A national approach for mapping and quantifying habitat-based biodiversity metrics across multiple scales." In *Ecological Indicators*. October, 2013. pp. 139-147.

River Valley as one of the major avian Neotropical migratory routes in the western U.S., serving as a corridor for an estimated four million migrating birds each year.⁶⁶



Debris clogging the space between border wall bollards in the San Pedro Riparian National Conservation Area. 2012. Scott Nicol.

During dry times there may be barely a trickle on the surface in certain reaches of the San Pedro River, but summer and winter rains can bring significant flows and even flooding. While not visible on the surface, subsurface flows support the maintenance of extensive and increasingly rare riparian vegetation, including cottonwood-willow gallery forests and mesquite bosques. International attention first came to the river with the congressional designation of the San Pedro Riparian National Conservation Area (SPRNCA) in 1988, which was designated "to protect and enhance the desert riparian ecosystem, a rare remnant of what was once an extensive network of similar riparian systems

⁶⁶ Skagen, Susan K. (USGS), C.P. Melcher, W.H. Howe and F.I. Knopf, "Comparative Use of Riparian Corridors and Oases by Migrating Birds in Southeast Arizona", in *Conservation Biology* (Vol. 12, No. 4, August, 1998), pp. 896-909.

throughout the Southwest”.⁶⁷ To this date it is one of only two Riparian National Conservation Areas in the nation. The SPRNCA protects a length of this river and adjacent lands, beginning at the border and extending for forty miles into the U.S. interior.

Customs and Border Protection proposed the erection of pedestrian border walls stretching away to the east and west from the river’s banks. These bollard walls were proposed to cut across multiple washes and drainages in its watershed, and vehicle barriers would be erected across its riverbed. In 2007 a Final Environmental Assessment conducted by the Bureau of Land Management with a “finding of no significant impact” was rushed out with a “zero day comment period,” in an effort to give the appearance of compliance with the National Environmental Policy Act (NEPA). Some observers saw this downplay of significant impacts and circumvention of the public process as antithetical to both the spirit and intent of NEPA.



Vehicle barrier trapping debris in the San Pedro River. 2012. Scott Nicol.

Two days after construction began, the Defenders of Wildlife and the Sierra Club sued, seeking a temporary restraining order on the grounds that the government had failed to comply with the National Environmental Policy Act’s mandate. In addition to skipping a public comment period, the environmental groups asserted that the document had been crafted to intentionally downplay the impact of the proposed border barriers and patrol roads. They told the court that the effects of habitat fragmentation on terrestrial animals had been significantly understated and poorly analyzed, and the hydrological impacts of walls through washes, including erosion, sedimentation, and worsened flooding, had been inadequately studied and disclosed. The Environmental Assessment had also examined the wall in the San Pedro River Valley in isolation, which ignored the cumulative impacts and interconnected nature of the overarching border militarization scheme of which it was a component. Animals that found their way to the end of the San Pedro wall would now encounter patrol roads and floodlights, not the intact cross-border wildlife corridor that was once there. The court agreed with the plaintiffs on the merits of their case, and issued a restraining order, bringing work on the San Pedro border wall to a halt. Just over a week later, Secretary of Homeland Security Michael Chertoff invoked the REAL ID Act to waive nineteen federal laws for border walls and patrol roads in the San Pedro River Valley. Construction quickly resumed and was completed, despite the federal project’s significant impacts to natural and cultural resources and the government’s failure to solicit and duly consider public comments on the project’s environmental assessment.

⁶⁷ Bureau of Land Management website for the San Pedro Riparian Conservation Area, accessed on 8/24/2018: <https://www.blm.gov/visit/san-pedro>



Jaguar photographed in southern Arizona. 2015. U.S. Fish and Wildlife / University of Arizona.

WALLING OFF JAGUAR IN ARIZONA

Jaguars were believed to have been wiped out in the United States in the twentieth century, but in 1996 one was photographed in the Peloncillo Mountains near the border between Arizona and New Mexico. The next year the jaguar was listed under the Endangered Species Act in the U.S., which was excluded from its original listing in 1972. A half-dozen subsequent sightings on the U.S. side of the border indicate that jaguars are attempting to make a comeback in suitable habitat north of the border that they previously occupied for thousands of years. Those that were seen in the United States almost certainly originated in northern Mexico, where a small, vulnerable core population of northern jaguars remains. In theory, jaguars would have little difficulty passing through permeable vehicle barriers,

but they would likely shy away from the lights and traffic of a well-used patrol road and would find pedestrian border walls to be an impassable obstacle. Examining the possible environmental impacts of border walls to jaguar along Arizona's southern boundary in 2007, the U.S. Fish and Wildlife Service warned that, "Should all jaguar movement corridors be compromised, it is possible that the jaguar will become extirpated from Arizona, as it is believed the existence of jaguars in Arizona relies on interchange with jaguars in Sonora."⁶⁸ In subsequent years the lower, flatter valleys between mountain chains that run between Arizona and Sonora were walled off, but rugged terrain in the mountains remained unwalled, and motion activated cameras set up by U.S. Fish and Wildlife, the University of Arizona, and others continue to document jaguars occupying U.S. habitat that they access through these few remaining unwalled movement corridors along the border. Biologists and advocates remain concerned that further constricting these last pathways with walls and disturbances associated with the militarization of the border will eliminate the possibility for recovery of northern jaguars, which largely depends on their ability to expand their population by accessing millions of acres of suitable habitat in the United States.

⁶⁸ Spangle, Steven. *Consultation Under Section 7 of the Endangered Species Act Related to Proposed Pedestrian Fencing in Arizona*. Letter dated August 29, 2007. p. 24.

The Rio Grande Floodplain

For just over 1,200 miles from El Paso to the Gulf of Mexico, the deepest channel of the Rio Grande serves as the international boundary. The final stretch of the border, 275 miles of winding river (but around 150 highway miles), is known as the Lower Rio Grande Valley. Following passage of the Secure Fence Act, the Border Patrol's Rio Grande Valley sector was assigned 70 miles of wall, but those walls could not be built within the floodplain of the Rio Grande. This is because a 1970 update to the Treaty of Guadalupe Hidalgo stated that, "each contracting State shall prohibit the construction of works in its territory which, in the judgment of the [International Boundary and Water] Commission, may cause deflection or obstruction of the normal flow of the river or of its flood flows."⁶⁹ The concern was that in a major flooding event that swelled the river—for example, when a hurricane blows in from the Gulf of Mexico—any obstruction would deflect the rising water. Murky, debris-filled water would be pushed deeper into communities on the side of the river opposite the barrier, worsening flooding there. When the water eventually drained the Rio Grande might even settle into a new channel, effectively moving the boundary line.

Beginning in the 1930s, and with significant construction in the 1950s to 1970s, flood-control levees built along the last 180 river miles of the Rio Grande have been a cooperative project of the United States and Mexico. When levees were built on one side of the river, identical levees were built on the other. They were exactly the same height, so that if floodwaters overtopped one they would simultaneously overtop its opposite. The levees follow

⁶⁹ Treaty to Resolve Pending Boundary Differences and Maintain the Rio Grande and Colorado River as the International Boundary Between the United States and Mexico. Signed November 23, 1970.



Border Patrol driving on flood control levee behind bollard border wall in El Calaboz, Texas. 2009. Scott Nicol.

straighter lines than the river, so they range from a few hundred feet to up to two miles from its banks, and where they stand they define the Rio Grande floodplain. When CBP began mapping out border walls in 2007 to fulfill the mandate of the Secure Fence Act, they were informed by the International Boundary and Water Commission (IBWC) that walls could not go up in the floodplain between the levees and the river, or in the floodplain further upriver where there are no levees.⁷⁰ This meant that in the Rio Grande Valley sector border walls would be built up to two miles from the border into the nation's interior. Initially CBP planned to erect bollards, the six-inch-wide, eighteen foot tall steel posts spaced four inches apart that had already gone up in parts of California, Arizona, and New Mexico. These would be placed a few feet north of the levees to keep them out of the flood plain.

Alarmed by the damage that walls would do to the environment and the possibility of losing access to the Rio Grande, and angry about the government's plan to condemn private property, the overwhelming majority of Rio Grande Valley

⁷⁰ Riera, Alfredo J. Letter to U.S. Customs and Border Protection Commissioner Ralph Basham. November 24, 2008. Obtained by the Sierra Club via Freedom of Information Act request.

residents were opposed to border walls. For a time, local elected officials joined protests, and city governments such as those in McAllen and Mission hosted their own anti-border wall events and contributed to grassroots efforts to stop the walls.⁷¹ But in a 2008 about-face the governments of Hidalgo and Cameron Counties, the two counties that were home to the IBWC levees, lobbied Texas’ U.S. Senators, who in turn leaned on CBP, to adopt a different design.⁷² This alternate design would carve away the river-facing side of the earthen IBWC flood-control levee and replace it with a sheer vertical slab of concrete. The levees were at that time in a state of disrepair and there was concern that the Federal Emergency Management Agency would decertify them, forcing those who lived in cities to the north of them to buy flood insurance. This scheme, they hoped, would mean that when CBP built their border wall they would at the same time repair the levees, and the repairs would be paid for by the federal government rather than by local taxpayers.



Levee-border wall under construction in Hidalgo, Texas. 2009. Scott Nicol.

71 Diaz, David A. “Texas Leaders Finalizing Political Groundwork for Legislative Assault on Planned Border Wall.” Edinburg Politics. June 6, 2007.

72 Leatherman, Jackie. “Pressure mounts on local levee upgrades and border fence plans.” *The Monitor*. 19 Nov 2007.

At first Customs and Border Protection rejected this idea outright. After a meeting with U.S. Senator John Cornyn’s office they wrote, “Senator Cornyn asked if reinforcing the levees would increase operational control? He was advised that building up the levee would do little from an operational perspective.”⁷³ In a Draft Environmental Impact Statement issued the following month, CBP wrote of levee-border walls that “this alternative did not meet the screening criteria of USBP [U.S. Border Patrol] operational requirements, [and] was not considered a viable alternative.”⁷⁴ But just a few months after being told by CBP that they had no use for levee-border walls, Senator Cornyn stood beside Homeland Security Secretary Chertoff and local officials to announce what he called a “win-win”: levee-border walls.⁷⁵ These would only be built in Hidalgo County, because CBP demanded that the County cover the difference in cost between the bollard wall design and that of levee-walls. The bollards design alone averaged \$7 million per mile, whereas levee-border walls reportedly averaged \$12 million per mile. Because Hidalgo County had bond money on hand which was supposed to be used for flood control and drainage improvements, Hidalgo County received levee-border walls. Cameron County did not have the necessary funds available, and so it received bollard border walls. Senator Cornyn promised Hidalgo officials that the federal government would reimburse the county for the nearly \$80 million that it paid towards the cost of levee-border walls, but the bills that he introduced to that effect

73 Briefing on Levees in Rio Grande Valley Sector. October 2007. Obtained by the University of Texas Rappaport Center via Freedom of Information Act request.

74 *Draft Environmental Impact Statement for Construction, Maintenance, and Operation of Tactical Infrastructure, Rio Grande Valley Sector, Texas*. U.S. Department of Homeland Security. U.S. Customs and Border Protection. U.S. Border Patrol. November, 2007. p. 2-13, 2-14.

75 Taylor, Steve. “U.S. to Raise Levees in Lieu of Border Wall.” Reuters. February 8, 2008.



Sign in a farm field that is now behind the border wall. 2008. Scott Nicol.

failed.^{76 77} The public outrage at this deal gave lie to one side of Secretary Chertoff's "win-win" proclamation, while CBP's earlier strong objection to the design called into question whether they had operational priorities for political expediency.

The Condemnation of Private Property

In addition to limitations on the border wall due to treaty, private property has proven to be a complicating factor. Lining the border from El Paso to the Pacific Ocean there is a 60-foot wide strip of land known as the Roosevelt Easement that is federally owned and has been set aside for border enforcement. So long as walls and patrol roads were constructed entirely within the Easement there

⁷⁶ "Hidalgo County Drainage District #1 2007, 2008, 2009 and 2010 Cost of Projects for DHS Levee Wall Segment and Levee Only." Hidalgo County Drainage District #1 spreadsheet. Obtained by the Sierra Club via Texas Open Records request.

⁷⁷ Janes, Jared. "Cornyn to try again on levee reimbursement bill." *The Monitor*. January 12, 2009.

would be no need to purchase or condemn property. Texas does not have a Roosevelt Easement, and most of the land along the river in the Lower Rio Grande Valley is in private ownership. Some families have held land since the 1760's, when the Spanish Crown granted long parcels extending out from the river. For them the land is not simply a commodity that they might readily part with for the right price; it is a direct connection to the generations that came before and the communities that their ancestors helped to found. When Border Patrol agents came to the door demanding access to survey their property, then came again with an offer to purchase it, many balked. Some held their land too dear to be willing to sell at any price; others considered the government's initial offer to be insufficient. Customs and Border Protection only wanted to buy the 60-foot-wide footprint of the border wall, and their first offer often overlooked the devaluation of property left in what locals came to call the "no man's land" between the wall and the river. Some landowners would get access gates, others would not, but in every case, it would be more difficult to live, farm or



Border wall through Brownsville, Texas. 2014. Scott Nicol.

work land behind the border wall. The devaluation of land was and continues to be a major concern. Initial offers were also consistently below market value. Some, believing that fighting the government was futile, accepted the low offers, but those who enlisted legal representation nearly always received significantly more. Fourteen landowners who requested jury trials to determine proper compensation, but who ultimately settled before their trials began, received on average 1,200 percent more for their land than they were initially offered.⁷⁸

The time that it took to condemn private and municipal property, not to mention the bad press, added to the attractiveness of the levee-border wall design. The federal government asserted that the levees were owned by the U.S. section of the International Boundary and Water Commission (IBWC), and therefore there would be no need for the federal government to condemn what it already possessed. But that was an oversimplification of the actual legal situation. The mounds of earth that comprised the levees were owned by the IBWC, but the IBWC did not own the ground upon which the levees sat. Instead, that land was part of an adjacent tract, and

⁷⁸ Weber, Paul J. "Landowners Say Government has Shortchanged them on Seized Border Fence Properties." Associated Press. October 15, 2012.

the IBWC had an easement, not ownership in full. Those easements were all written with flood control, not border security, in mind. Nevertheless, CBP moved forward on levee-border wall construction, tearing open levees and inserting concrete slabs in Hidalgo County, without first purchasing or condemning the land under the levees. The conversion of earthen levees into concrete levee-border walls would of course require inserting foundations into the land beneath the levees – land that the federal government did not own. In time the problem dawned on Customs and Border Protection, mostly as a result of landowners challenging what they saw as a violation of the terms of the easements that they held and the devaluation of property that stood between the wall and the river. In 2013, four years after the levee-border wall was completed, a Justice Department lawyer addressed this in court, telling the judge,

Unfortunately, we're a little bit behind the curve. We actually built the fence on land we haven't finished taking yet. For example, the fee under the levee, we haven't taken that yet, yet it's been built on and worked on.⁷⁹

But of course there was no way to undo the walls that had already been built, so all that was left to haggle over in court was the compensation that the owners of the land under the levee-border walls would receive.

⁷⁹ United States of America vs. 15.919 Acres of Land, et al. Civil Action no. B-08-427. United States District Court Southern District of Texas. Status conference. June 25, 2013.

FIGHTING CONDEMNATION: ELOISA TAMEZ

Dr. Eloisa Tamez served in a U.S. Army combat support hospital before retiring with the rank of Lt. Colonel and returning home to the Lower Rio Grande Valley to take a position at the University of Texas in Brownsville Nursing School (now UTRGV Medical School). She traces her ancestry back to the Chiricahua and Lipan Nde' (Apache) who inhabited the area before the arrival of Spaniards. Three acres of land, the remains of a 12,000-acre parcel granted by the Spanish crown in the 1760s, were passed down to her. Customs and Border Protection targeted her land for a bollard wall, which would leave approximately $\frac{3}{4}$ of the property behind the wall. Dr. Tamez was one of many who did not want to sell at any price, and she elicited help from the Center for Human Rights and Constitutional Law to fight the proposal on her land. The court battle to condemn a 60-foot-wide swathe of her land dragged on through the end of the Bush Administration and into the Obama Administration. In April of 2009 the judge hearing the case granted the federal government possession on the condition that they “consult with the landowners of the property in question prior to exercising the rights given in this order.” Dr. Tamez was attending a conference in Colorado at the time, and before she made it back, crews from the contractor Kiewit Construction had already begun erecting the border wall on what had been her land. They were finished within 48 hours. The wall bisecting her land did not have a gate, so she would have to travel east for half a mile to the nearest gate, then double back and trespass on her neighbor’s property to access her own property in the “no man’s land” behind the border wall.

Of the 70 miles of border wall slated for the Lower Rio Grande Valley, 56 miles were ultimately built. Fourteen miles of bollard border wall planned for the Rio Grande floodplain in Starr County were not constructed during either the Bush or Obama Administrations due to concerns about potential flooding and the dictates of the treaty that established the river as the border. Of those that were built, 20.5 miles were in Hidalgo County, where the levee-border wall design was used and where Customs and Border Protection believed (erroneously, it would turn out) that there was no need to either purchase or condemn private property. The remaining land in the border wall’s path through Cameron County was a mix of private and municipal



Shadow of the border wall on a house in Brownsville, Texas. 2014. Scott Nicol.

property and federally owned tracts of the Lower Rio Grande Valley National Wildlife Refuge. In 2009 Customs and Border Protection claimed that there were 384 non-federal landowners whose property they needed to acquire. Of those, 307, or 80%, refused CBP's offers of compensation and had their property condemned.⁸⁰ While these numbers seemed high, they were undercounts. National Public Radio would later report that 320 eminent domain cases had been heard by the federal court in Brownsville. Cases dragged on for years, long after the government had taken possession of the land in question. NPR found 90 cases that had been initiated in 2008, which remained unresolved in 2017.⁸¹ And in 2013, in the same hearing before the court during which the Justice Department's lawyer admitted that levee-border walls had been built on private property without compensating the owners, he also confessed that the government had overlooked hundreds more in the city of Brownsville: "When we took the property from the city, 'we' meaning the United States, we thought all the property was owned by the city," he said. "It turns out it's owned by... the city plus about 257 other parties."⁸² But by the time they came to that realization, the walls were already standing on land whose owners they had not yet been contacted,

⁸⁰ "Real Estate Issues." Powerpoint presentation. U.S. Department of Homeland Security. U.S. Customs and Border Protection. SBI TI / Facilities Management and Engineering. Undated (after March 3, 2009). Obtained by Judicial Watch via Freedom of Information Act request.

⁸¹ Burnett, John. "Landowners Likely to bring more Lawsuits as Trump moves on Border Wall." National Public Radio. February. 23, 2017; see also Miller, T. Christian, Kiah Collier, and Julian Aguilar. "The Taking: How the federal government abused its power to seize property for a border fence." Texas Tribune. December 14, 2017,

⁸² United States of America vs. 15.919 Acres of Land, et al. Civil Action no. B-08-427. United States District Court Southern District of Texas. Status conference. June 25, 2013.

casting shadows on the backs of homes and blocking access to the Rio Grande.



Ocelot in the Lower Rio Grande National Wildlife Refuge. 2011. U.S. Fish and Wildlife.

Fragmenting the South Texas Wildlife Corridor

The federal lands upon which walls were first proposed in south Texas are part of the Lower Rio Grande Valley National Wildlife Refuge. This refuge system was established in part to provide habitat for federally endangered ocelots and jaguarundi. These two wild cat species each stand a bit shorter than a bobcat. With its spotted and striped orange coat, the ocelot bears a passing resemblance to a miniature jaguar, while the jaguarundi, with a black pelt and elongated, sinewy body, looks more like a weasel. It is estimated that fewer than 50 ocelots remain in the United States, and biologists have begun to see signs of inbreeding, which weakens the population's fitness and makes it more prone to disease. It has been years since there has been a confirmed jaguarundi sighting in the Lower Rio Grande Valley, though unconfirmed reports occur periodically. Both of these elusive and endangered

cats were driven to the brink of extirpation in the United States due to habitat loss, as roads, cities, and farms have eliminated 95% of the region's native Tamaulipan thornscrub. When the Lower Rio Grande Valley National Wildlife Refuge was envisioned, a single block of native habitat large enough to support stable populations of ocelot and jaguarundi no longer existed, so instead the goal was to piece together a string of connected conservation lands, creating a wildlife corridor bound together by the Rio Grande. Even where there were gaps between vegetated parcels, the brush that lined the river's edge was anticipated to allow wildlife to travel from one tract to the next. In addition to the Lower Rio Grande Valley National Wildlife Refuge, the Santa Ana National Wildlife Refuge, the Bentsen Rio Grande State Park and World Birding Center, the Sabal Palms Sanctuary that Audubon Texas owned, the Nature Conservancy's Southmost Preserve, and the North American Butterfly Association's National Butterfly Center would act as links in this chain of conservation network.



"Cat hole" in a bollard border wall. 2009. Scott Nicol.

Because lands that were already owned by the federal government would not require condemnation and years spent in court that could delay construction, the Lower Rio Grande Valley National Wildlife

Refuge was targeted when Customs and Border Protection decided where to build walls.⁸³ Biologists at U.S. Fish and Wildlife determined that the planned border walls would impact between 60-75% of the refuge's lands, either cutting a tract of land in two or bordering it.⁸⁴ Tracts in Cameron County were proposed to receive bollard border walls, whereas tracts in Hidalgo County would receive levee-border walls. An earthen levee bisecting a forested refuge does not stop the movement of terrestrial wildlife, as it has a gentle slope on either side that an animal can easily surmount and cross. But bollard border walls built a few yards to the north of the levees would block the movement of all but the smallest of animals. The bollards would be spaced four inches apart, too small for an animal much larger than a snake or a mouse, so U.S. Fish and Wildlife Service convinced Customs and Border Protection to incorporate "cat holes" into the base of these walls. Biologists recommended that these be 16" X 20" at a minimum, in areas that were unlit by floodlights at night, and with brush no more than 5-8 feet away. Ocelots are nocturnal and secretive, so they would avoid an area that was brightly lit, highly trafficked, or offered insufficient cover.⁸⁵ The "cat holes" that Customs and Border Protection built into the bollard walls were instead 8" X 11", too small for an ocelot to get through, and like the rest of the border wall, they were lit by floodlights and had a patrol road beside them. There have been no published reports of instances of ocelots using one.

83 Tuggle, Benjamin. "Information Memorandum for the Director." October 2, 2007. U.S. Fish and Wildlife memo obtained by American Oversight via Freedom of Information Act request.

84 Viramontes, Jose and Nancy Brown. "On the Border: Protecting Natural Resources on the Front Lines of Immigration." *Fish & Wildlife News*. Summer, 2008. p. 12.

85 Mays, Jody. "Subject: RE: CBP Project - Ocelot / Wildlife Crossings." September 10, 2007. U.S. Fish and Wildlife email obtained by the Sierra Club via Freedom of Information Act request.

U.S. Fish and Wildlife was caught off guard when Customs and Border Protection reversed their rejection of levee-border walls in Hidalgo County. While bollard walls might exclude all but the smallest terrestrial animal, an eighteen-foot-tall vertical slab of concrete would stop everything. A “cat hole” would not be feasible in the base of a structure that is meant to hold back flood waters. Not even a field mouse or snake could get past it; ocelots and jaguarundi would not stand a chance. Levee-border walls would therefore fragment habitat and isolate animal populations whenever they cut through wildlife refuge tracts. And when the floods that the levees were intended to hold back occurred, they would potentially trap the terrestrial animals that the refuges were meant to preserve, causing them to die by drowning or starvation.



Levee-border wall in the Lower Rio Grande Valley National Wildlife Refuge. 2009. Scott Nicol.

This happened in 2010, a year after the levee-border walls were completed, when the remnants of Hurricane Alex ran up the Rio Grande, followed a month later by a tropical depression. Both dumped rain into the Sierra Madre Oriental, which then drained into the river. Floodwaters inundated the lands between both nations’ levees and did not drain out of some refuge tracts for four months. Where there were normal levees, animals that could reach

them ahead of the rising water escaped. But where the levees had been converted to levee-border walls, U.S. Fish and Wildlife reported that,

The floodwall blocked almost all egress for terrestrial wildlife species. [...] Hundreds of shells of Texas Tortoise have been found demonstrating the probability of mortality for species which could not retreat from rising water levels. The Service fears any ocelots or jaguarundi that may have been caught in these areas when water began to rise may have been malnourished, injured, or perished.⁸⁶

The Texas tortoise is listed as a threatened species by the state of Texas. Animals whose remains would be less durable than a tortoise shell surely also died, but their corpses had decomposed and been swept away by the river. With the levee turned into a levee-border wall, the wildlife refuges had become death traps for the terrestrial wildlife that they were intended to protect.

Do Walls Work?

The harm inflicted upon wildlife refuges and the properties that were condemned to build the Secure Fence Act’s walls were an acceptable trade off proponents said, for the security that those border walls would bring. Homeland Security Secretary Michael Chertoff defended the waiving of laws that allowed for the border wall to be built through the San Pedro National Riparian Conservation Area by claiming that it would “stem the flow of illegal entrants” and thereby be of benefit to the environment by stopping

⁸⁶ “Rationale and Justification for Conservation Measures Rio Grande Valley Sector.” US Fish and Wildlife Corpus Christi Ecological Services Field Office. March 9, 2011. Obtained by the Sierra Club via Freedom of Information Act request.



Ladders stacked against the border wall in Hidalgo, Texas. 2012. Scott Nicol.

the accumulation of trash and the carving of foot trails.⁸⁷ He similarly defended the condemnation of private property, dismissing the concerns of landowners by saying,

The bottom line is that there are some areas—particularly urban locations near the border—where, in the absence of a fence, we’re going to get drugs and violence and human smuggling across the border... what we’re not going to do is to say that everyone gets to decide whether they’re going to participate in the process and if they don’t want to, then the greater good be damned.⁸⁸

The concrete benefits of walling-off the border, he claimed, outweighed the costs. Local communities needed to sacrifice for “the greater good.”

That said, the Secure Fence Act’s definition of Operational Control, with absolutely no undocumented persons or contraband entering the United States even in places where walls were not built, was clearly absurd, so much so that by 2010 Customs and Border Protection had quietly

⁸⁷ Department of Homeland Security: Statement Regarding Exercise of Waiver Authority. October 19, 2007.

⁸⁸ “Q&A: Michael Chertoff; Secretary of Homeland Security.” San Diego Union-Tribune. December 16, 2007.

abandoned it.⁸⁹ They reverted to the pre-Secure Fence Act metric of Effective Control, which only required that agents be able to detect, identify, respond to, and resolve penetrations of U.S. borders, rather than prevent every single one of them. Even so, there was little evidence to support the assertion that border walls enhanced the Border Patrol’s level of control or improved national security. In 2011 the Government Accountability Office informed the U.S. Senate that Customs and Border Protection could not demonstrate whether or not border walls had had a measurable impact on border security.⁹⁰ The GAO reiterated this point in 2017, finding that “CBP cannot measure the contribution of fencing to border security operations along the southwest border because it has not developed metrics for this assessment.”⁹¹ The extent to which the “greater good” was or was not served by walling off parts of the border was not something that Customs and Border Protection would take the time to examine under the leadership of Homeland Security Secretary Chertoff or his successors.

⁸⁹ Gambler, Rebecca. *Border Patrol: Goals and Measures Not Yet in Place to Inform Border Security Status and Resource Needs*. Testimony before the Subcommittee on Border and Maritime Security, Committee on Homeland Security, House of Representatives. U.S. Government Accountability Office. February 26, 2013.

⁹⁰ Stana, Richard. *Border Security: DHS Progress and Challenges in Securing the U.S. Southwest and Northern Borders*. Testimony before the Committee on Homeland Security and Governmental Affairs, U.S. Senate. U.S. Government Accountability Office. March 30, 2011.

⁹¹ *Southwest Border Security: Additional Actions Needed to Better Assess Fencing’s Rising Contributions to Operations and Provide Guidance for Identifying Capability Gaps*. U.S. Government Accountability Office. February 2017. p. 25.

Apprehensions and Seizures: Measuring Efficacy

Apprehensions—the number of people taken into custody by the Border Patrol—and narcotics seizures have long been used as proxies for border security efficacy in the absence of valid metrics. When they are presented to demonstrate the success of border enforcement both suffer from a fundamental flaw: they only show one part of a two part equation. If it is reported that 10 people were apprehended, or 10 kilos of cocaine were seized, one cannot say whether that signifies success or failure without knowing how many people attempted to cross the border, or how many kilos of narcotics in total smugglers tried to bring into the U.S. If only 10 people tried, or 10 kilos were sent, that would represent success to the degree envisioned by the Secure Fence Act. If instead it is 10 out of 10,000 that would represent a statistical drop in the bucket. Without that second number there is no way to know how often border crossers or contraband evade detection. This was understood in 1994, when the United States Commission on Immigration Reform reported to Congress that “The typical measurements of Border Patrol effectiveness—apprehension rates—have little meaning in assessing a prevention strategy.”⁹² But because the Border Patrol is under pressure to demonstrate success and they have at hand apprehension and seizure numbers, they used them. The Border Patrol’s 1994 Strategic Plan, which introduced the Prevention through Deterrence strategy, stated that “the strategic objective is to maximize the apprehension rate.”⁹³ Ever since then the latest apprehension and seizure numbers have been a

⁹² *U.S. Immigration Policy: Restoring Credibility*. U.S. Commission on Immigration Reform. 1994. Executive summary p. vii.

⁹³ *Border Patrol Strategic Plan: 1994 and Beyond*. United States Border Patrol. July, 1994

standard part of reports and testimony provided to Congress by border enforcement agencies.



Apprehension in Hidalgo, Texas. 2016. Scott Nicol.

When these numbers are presented they are invariably used to demonstrate success, at least in the present tense by those officials who are in office at the time of the presentation. Former Customs and Border Protection Commissioner Alan Bersin exemplified this in testimony he gave before Congress in the Spring of 2010, in which he pointed to “data showing a significant increase in drug seizures, coupled with a decline in border apprehensions.” Explaining the significance of the seizure and apprehension numbers he told the representatives in the room, “These numbers demonstrate the effectiveness of our layered approach to security, comprised of a balance of tactical infrastructure, technology, and personnel at our borders.”⁹⁴ On top of the fact that neither of those numbers were coupled with the total number of people who attempted to enter the United States or the quantity of narcotics that smugglers tried to get across the border, it is

⁹⁴ Bersin, Alan. “Testimony of Alan Bersin, Commissioner U.S. Customs and Border Protection, Department of Homeland Security before the House Appropriations Committee, Subcommittee on Homeland Security.” April 14, 2010.

striking that both an increase in seizures and a decline in apprehensions were touted as evidence of success. Logically, if a decrease in apprehensions was a sign that fewer people were attempting to cross the border, an increase in seizures should be interpreted as an indication that more drugs came across. Clearly, new metrics and cost-benefit analyses are needed to guide policy.

These figures also failed to show any causal relationship between captures and seizures and the border enforcement strategies that had been deployed, such as walls, surveillance, and more “boots on the ground,” despite the fact that they were presented as evidence of such. It was true that there had been a significant drop in apprehensions in the preceding decade, going from a high of 1,676,438 in fiscal year 2000 to 556,041 in 2009, but a more granular look at apprehension data called into question whether they provided any indication that walls (“tactical infrastructure” in Commissioner Bersin’s lingo) had been the cause of the decline. The Secure Fence Act was signed into law in October of 2006, and the bulk of its walls were not built until late 2008 or early 2009. In south Texas the time required to move condemnation cases through the courts kept some walls from being completed until 2010, within a month of Commissioner Bersin’s testimony. A significant part of that decrease—587,346 fewer apprehensions—had occurred from fiscal years 2000 through 2006, before the Secure Fence Act was signed into law. After the Secure Fence Act passed this trend continued at a similar pace, declining by an additional 625,710.⁹⁵ This was clearly the continuation of an existing trend, and Customs and Border Protection provided no evidence that some portion of it was connected to the border walls that were then going up.

⁹⁵ United States Border Patrol Nationwide Illegal Alien Apprehensions Fiscal Years 1925 - 2016. U.S. Border Patrol fact sheet.



Surrendering to a Border Patrol agent in Texas. 2017. Scott Nicol.

Looking into the numbers more closely, from fiscal year 2000 to fiscal year 2009 the Border Patrol’s San Diego sector, home to some of the earliest border walls, experienced a 22% decrease in the number of apprehensions. The El Paso sector saw a far more dramatic decline of 87%. But it would be difficult to assign credit for these falling numbers to border walls. The Rio Grande Valley sector saw a 54% decrease in apprehensions before its walls were completed. And along the northern border apprehensions in the Spokane sector dropped by 79%, while the Buffalo sector bucked the overall downward trend by logging an increase of 70%. The New Orleans sector, where walls were never so much as considered because its borderline was coastline fronting the Gulf of Mexico, saw a 45% decline.⁹⁶ The overall decline in apprehensions along both land borders and the U.S. coastlines, in places where walls had been built and agents had been added and in places where they had not, showed that these changes in the number of people who were apprehended were not a response to the militarization of the southern border. From fiscal year 2010 on, apprehensions

⁹⁶ United States Border Patrol Illegal Alien Apprehensions by Fiscal Year 2000 - 2009. U.S. Border Patrol fact sheet.

nationwide generally leveled off, remaining in the 300 to 400 thousands, putting them on par with the apprehension rate in 1972 and 1973.⁹⁷ In 2013 the Government Accountability Office again told Congress that “studies commissioned by CBP [Customs and Border Protection] have documented that the number of apprehensions bears little relationship to effectiveness.”⁹⁸ Nevertheless, two years later President Obama’s Secretary of Homeland Security Jeh Johnson would

issue a statement claiming that, “I am also pleased that, due in large part to our investments in and prioritization of border security, apprehensions at the southern border—a large indicator of total attempts to cross the border illegally – are now at the lowest levels in years.”⁹⁹ His statement, like similar ones by his predecessors, was not backed by hard facts, as a causal relationship between border militarization and immigration and drug smuggling rates have yet to be established with reliable empirical data.

⁹⁷ United States Border Patrol Nationwide Illegal Alien Apprehensions Fiscal Years 1925 - 2016. U.S. Border Patrol fact sheet.

⁹⁸ Gambler, Rebecca. “Border Patrol: Goals and Measures not yet in Place to Inform Border Security Status and Resource Needs.” U.S. Government Accountability Office testimony before the Subcommittee on Border and Maritime Security, Committee on Homeland Security, U.S. House of Representatives. February 26, 2013.

⁹⁹ “Statement by Secretary Jeh C. Johnson Concerning the District Court’s Ruling Concerning DAPA and DACA.” Department of Homeland Security Press Release. February 17, 2015.



Hinged door in the border wall in Tijuana. 2018. Scott Nicol.

Breaching Border Walls

The Department of Homeland Security and Customs and Border Protection have been far more reluctant to discuss a different statistic, one which speaks more directly to the efficacy of border walls—the number of times they have been breached, and crews have been sent out to repair them. A breach can take many forms, from someone scraping away just enough earth to crawl under a landing mat wall, to cutting a garage door sized hole and installing hinges, to completely removing an entire section of bollard border wall. Unlike apprehensions, the number of breaches that occur each year is not a figure that is made available to the public. This is unsurprising, as each apprehension marks an instance in which the Border Patrol did its job, while each hole cut in the wall points to an instance in which that wall failed. The Prevention through Deterrence strategy is predicated upon convincing

would-be crossers that the border and the walls that line it are impenetrable, so presenting evidence to the contrary would be counter-productive to this psychological strategy. The numbers that have come out are therefore incomplete, but they indicate that holes are cut through it with startling frequency. According to a Customs and Border Protection document obtained through a Freedom of Information Act request, walls built prior to the Secure Fence Act in the San Diego sector were breached 3,376 times from 2004 through 2007, which averaged out to 21.6 breaches per week. Over a six-month span in 2008 the Tucson Sector, which had a mix of pre- and post-Secure Fence Act walls, saw 545 breaches, or 19 per week. The El Paso sector logged 2,861 breaches from March of 2008 through September of 2009, with the average weekly rate increasing from 31.2 to 39.2 breaches from one year to the next.¹⁰⁰ The Government Accountability Office recently reported that border-wide, walls were breached nearly 9,300 times from 2010 through 2015.¹⁰¹ These are only snapshots, and it would take much more extensive documentation to determine just how prone to penetration border walls are, but this incomplete record does show that they fall far short of the impregnability enshrined in the Secure Fence Act's definition of and demand for Operational Control.

Moreover, the barriers and roads that Customs and Border Protection installs can prove counter-productive, particularly when a breach goes undetected. After flooding swept away a section of border wall on the west side of Nogales in 2014, crews fanned out to see if there were other nearby sections that were in need of repair. They discovered that a mile to the east of the city someone had cut and removed 8 of the border wall's concrete-filled steel bollards, leaving a gap large



Multiple patches on border wall near Naco, Arizona. 2012. Scott Nicol.

enough to drive a car through. It was estimated that with the right equipment each steel bollard would have taken just 15 minutes to slice through.¹⁰² Without knowing when the wall had been breached there was no way to know how many vehicles might have passed through it, or what they might have been carrying.

In addition to cutting through border walls numerous other means have been employed to defeat them. For years the Border Patrol has come across simple but effective ladders abandoned all along the border wall. A total of 224 tunnels constructed across the border were uncovered from 1990 to 2016. These ranged from crude affairs tapping into existing drainage or sewage tunnels, to multi-million dollar conduits with lighting and ventilation that connected buildings on either side of the border.¹⁰³ Aircraft and ultra-lights, boats and semi-submersibles and even catapults have also been employed to get contraband over or around walls. And most smuggling operations bypass border walls altogether. In 2015 the U.S. Drug Enforcement Agency asserted that, "Mexican TCOs [Transnational Criminal Organizations] transport the

100 U.S. Customs and Border Protection chart. September 30, 2009. Obtained by the Sierra Club via Freedom of Information Act request.

101 *CBP is Evaluating Designs and Locations for Border Barriers but is Proceeding without Key Information.* U.S.

Government Accountability Office. July, 2018. p. 28.

102 Pendergast, Curt. "Vehicle-sized Gap Cut in Border Fence." Nogales International. July 29, 2014.

103 "‘Location, location, location’: Drug smugglers build elaborate border tunnels from Mexico." Associated Press. March 10, 2017.

bulk of their drugs over the Southwest Border through ports of entry (POEs) using passenger vehicles or tractor trailers.”¹⁰⁴ A significant number of undocumented immigrants also enter the U.S. through ports of entry, either smuggled in a vehicle, presenting fraudulent documents, or overstaying a valid visa, and it is estimated that this accounts from between 25 - 50% of the annual inflow.¹⁰⁵ The ports of entry have been conduits whereby people and contraband have entered the United States for decades, long before walls lined portions of the border between them. Additionally, of course there remains what the Border Patrol has dubbed the funneling effect, whereby would-be entrants cross the border in remote areas.



Memorial to migrants who died crossing the border near Sasabe, Arizona. 2007. [Juanita Sundberg](#).

Deaths in the Desert

Just as the militarization of San Diego and El Paso in the late 1990s and early 2000s pushed crossings into

¹⁰⁴ 2015 *National Drug Threat Assessment Summary*. U.S. Department of Justice Drug Enforcement Administration. 2015. p. 3.

¹⁰⁵ Seghetti, Lisa. *Border Security: Immigration Inspections at Ports of Entry*. Congressional Research Service. January 9, 2014. p. 30.

inhospitable areas, the erection of hundreds of miles of additional border walls and the hiring of hundreds of Border Patrol agents from the mid- 2000s on funneled border crossers into ever more dangerous terrain. In addition to separating sister cities like Calexico and Mexicali, walls were built in some of the remote areas that had seen an increase in both crossings and deaths during earlier militarization. That in turn meant that crossings shifted into even harsher terrain, too rugged and inaccessible for construction crews to access. There it might take a week or more for an individual or a group on foot to trudge to a road where they could be picked up and driven further into the U.S. interior. In the Sonoran Desert daily summer temperatures regularly top 100 degrees Fahrenheit and there are few reliable sources of water. A single gallon of water, hardly enough for a day spent walking in such heat, weighs more than eight pounds, so it is extremely difficult to carry enough water for a week’s trek. This led to more and more people dying excruciating deaths from heat exhaustion, dehydration, and exposure.

As traffic shifted into what the Border Patrol had described as “hostile terrain” in their 1994 strategic plan, it became increasingly likely that a given border crosser would perish in the course of their journey. According to the Border Patrol’s publicly released statistics, from 2006, the year the Secure Fence Act was signed into law, through 2017, the number of people apprehended along the southern border dropped by 71%. But during that same period the number of bodies recovered by the Border Patrol fell at a far lesser rate, just 31%. This meant that crossing the border was becoming more dangerous. Digging into the numbers, in 2006 the Border Patrol reported finding 454 bodies and apprehending 1,072,972 living persons border-wide. By 2017 the number of apprehensions had fallen to 303,916, while the number of remains recovered was 294. The drop in the number of apprehensions and corresponding drop in the number of recovered bodies masked a more than doubling of the increase of the

likelihood of death, up from 42 deaths per 100,000 apprehensions to 96 deaths per 100,000. The likelihood of a border crosser dying was even more extreme in the Tucson Sector's deserts and mountains, where the death rate rose from 43 per 100,000 to 186 per 100,000. Persons trudging through the Laredo sector were even more likely to suffer and die, as its rate shot up from 48 deaths per 100,000 apprehensions in 2006 to a shocking rate of 326 per 100,000 in 2017.¹⁰⁶

¹⁰⁶ Southwest Border Deaths by Fiscal Year. U.S. Border Patrol fact sheet. United States Border Patrol Nationwide Illegal Alien Apprehensions Fiscal Years 1925 - 2016. U.S. Border Patrol fact sheet.



Water drop in California's Jacumba Desert. 2015. Scott Nicol.

WATER LEFT ON MIGRANT TRAILS

When the hardening of the border at San Diego pushed border crossings into California's Jacumba Mountains and desert in the 1990s, volunteers formed the Water Station Project and began placing water barrels topped with a flag along migrant trails. As routes for entering the United States shifted further to the east into the Arizona desert, volunteers hoping to "take death out of the immigration equation" followed the Water Station Project's example. Members of No More Deaths and Samaritans hiked remote, rugged trails in search of people in need of assistance, leaving gallon bottles of water behind for migrants who might come later. Humane Borders, founded in the year 2000, negotiated with federal land managers to stage 55 gallon water tanks where foot paths crossed dirt roads. All of these groups met regularly with the Border Patrol in an effort to avoid conflicts and establish protocols that could be followed when volunteers found a border crosser in need of immediate medical attention, or the body of someone who did not make it. To aid in decision making about the best places to establish a water drop, Humane Borders plotted the locations of all of the remains found in Arizona on maps, which they continue to update regularly. These maps provide a sense of the scope of the humanitarian crisis in Arizona, but they do not provide the entire picture. While they show the locations of recovered remains Humane Borders is quick to point out that there are countless others who are never found. And similar maps have yet to be produced for the other 3 southern border states. Since 2014 the Border Patrol has recovered more bodies in Texas' Rio Grande Valley Sector than Arizona's Tucson Sector, and the neighboring Laredo Sector has a higher rate of deaths to apprehensions than anywhere else, but while efforts to put out water along Texas migrant trails have occurred there has been no systematic mapping of the locations where hundreds of people perish each year.

It is important to recognize that these statistics are based upon the number of annual deaths that the Border Patrol records, a number that is widely criticized as a serious undercount. The Border Patrol's figures leave out any bodies that its agents were not directly involved in recovering, even if they were found alongside well-established migrant trails. They also exclude skeletal remains on the premise that it would be impossible to ascertain a cause of death, this despite the fact that in the Arizona desert a body could be reduced to a skeleton by scavengers and the elements in a matter of weeks. The Pima County medical examiner's office, which was responsible for an area corresponding with the Tucson sector's southern border range, examined hundreds of bodies that were found in the desert but not included in the Border Patrol's reported figures. In fiscal year 2017 the Border Patrol's official number of deaths for the Tucson sector was 72, even though the County received the remains of 149 persons. Pima County chief medical examiner Gregory Hess told CNN that, "Border Patrol only finds about 50% of the remains. The rest are found by whoever—hikers, hunters, ATVers."¹⁰⁷ This meant that the actual

rise in deaths that corresponded with the rise of border walls and the increasing militarization of the border had to be far greater than that which was officially reported. Humane Borders, an organization that maps the locations where human remains are found near the Arizona border so that they can more effectively deploy water stations in order to save lives, includes in their maps those left out by the Border Patrol's official numbers. Each red dot signifies terrible suffering, ongoing tragedies that continue to play out day after day, year after year.¹⁰⁸

Asylum Seekers and the Fear of Persecution

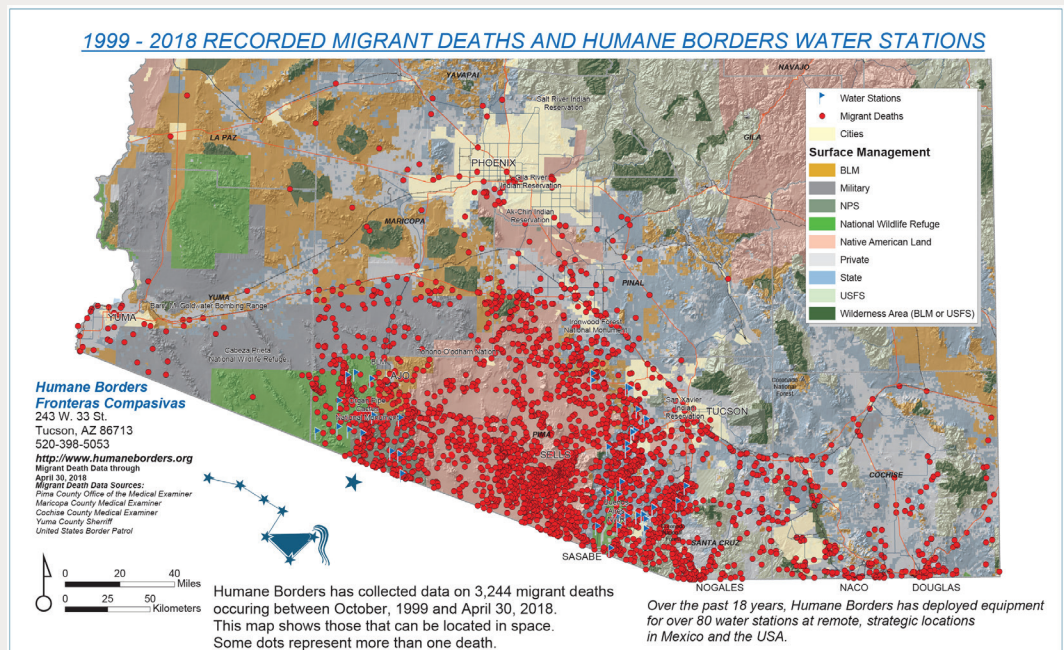
Many of the people that the Border Patrol apprehends each year are fleeing violence in their country of origin, hoping to be granted asylum

dreds of migrant deaths on US soil." CNN. May 15, 2018.

108 "Migrant Death Mapping." Humane Borders. <https://humaneborders.org/migrant-death-mapping/>

107 Ortega, Bob. "Border Patrol failed to count hun-

Map showing the locations where human remains were recovered in Arizona. **Humane Borders**



in the United States. Rather than attempting to evade apprehension they typically seek out federal agents, and are taken into custody before they ever encounter a border wall. They do not climb walls, cut holes through them, or trudge through the desert to get around them. To receive asylum rather than be deported they must first explain that they believe that sending them back would put them in danger, then they must make their case before an asylum officer. If they are able to convince that individual that they have what is called “credible fear” of persecution they will be given a court date with an immigration judge. Immigration courts are so backlogged that their date may be years off, so in the meantime they may be released with a tracking monitor on their ankle. Entering the United States to request asylum is not against the law, but asylum seekers are still included in the Border Patrol’s apprehension statistics, and the agency does not distinguish them from other entrants in their public reports.

In the second decade of the twenty-first century violence skyrocketed in the Central American countries of Guatemala, Honduras, and El Salvador. All three countries had become transshipment points for narcotics moving from South America to lucrative markets in the United States. At the same time all three had law enforcement and judicial institutions that were incapable of stemming the accompanying violence and lawlessness. Gangs such as MS-13 terrorized the territories that were under their control. As a result, by 2015 the murder rate in Guatemala was 29.2 deaths per 100,000 residents; Honduras saw 62.5 killed for every 100,000 persons; and El Salvador’s death rate hit 108.5 per 100,000.¹⁰⁹ More and more people affected by this violence fled to the United

109 Mathema, Silva. *They are Refugees: An Increasing Number of People are Fleeing Violence in the Northern Triangle*. Center for American Progress. February 24, 2016.

States, where the murder rate that year was just 4.5 per 100,000. The Department of Homeland Security reported that more people from those three countries requested asylum in fiscal years 2013, 2014, and 2015 than the combined total of the preceding 15 years.¹¹⁰



Family apprehended in Hidalgo, Texas. 2017. Scott Nicol.

The rising proportion of apprehensions that were people who intended to request asylum, as opposed to job seekers or others, can also be inferred by looking at year on year increases in two apprehension categories from these countries: unaccompanied minors and family units. Following the implementation of the Prevention through Deterrence strategy and the erection of border walls in urban areas crossings shifted into the Arizona desert, and in fiscal year 1998 the Tucson Sector’s apprehension rate exceeded that of the San Diego Sector. In fiscal year 2013 the Rio Grande Valley Sector pulled ahead of the Tucson Sector, and the following year it saw an additional 66% increase in apprehensions. This shift in traffic coincided with the increase in asylum seekers that the Department of Homeland Security reported. In FY 2013

110 Mossaad, Nadwa. *Refugees and Asylees: 2015*. Department of Homeland Security Office of Immigration Statistics. November, 2016.

the Rio Grande Valley (RGV) Sector counted 7,265 people in what they described as “family units”—a child, parent, or legal guardian taken into custody along with another family member—among their apprehensions. The following year 52,326 family unit apprehensions were reported in the sector, an increase of 620%.¹¹¹ The increase in unaccompanied children was also dramatic. In fiscal year 2011 the Border Patrol apprehended 5,236 unaccompanied children in the RGV Sector. In FY 2012 that number more than doubled, and the year after it doubled again. In FY 2014 the number of unaccompanied minors apprehended in the Rio Grande Valley Sector more than doubled yet again, hitting 49,959¹¹² and prompting President Obama to declare that “we now have an actual humanitarian crisis on the border.”¹¹³ That year 102,285 out of 256,393 apprehensions, in the sector that was responsible for more than half of the southern border’s total apprehensions, were of families and unaccompanied children, the overwhelming majority of whom came from Honduras, El Salvador, and Guatemala. At the time this was the population whose claims of credible fear of persecution were most likely to be accepted. In 2016 81% of the Hondurans and Salvadorans, and 60% of the Guatemalans, who declared that they feared for their lives if they were to be deported to their home country passed their initial credible fear interview and were allowed to remain in the country to further plead their case.¹¹⁴

111 *United States Border Patrol Southwest Border Sectors Family Unit and Unaccompanied Alien Children (0-17) apprehensions FY14 compared to FY 13*. U.S. Border Patrol.

112 *United States Border Patrol Total Unaccompanied Alien Children (0-17 Years Old) Apprehensions by Month*. U.S. Border Patrol.

113 Obama, Barack. “Remarks by the President on Border Security and Immigration Reform.” June 30, 2014.

114 Mossaad, Nadwa and Ryan Baugh. *Refugees and Asylees: 2016*. Department of Homeland Security Office

Policies under the Trump Administration targeted these asylum seekers with harsh measures, taking the strategy of Prevention through Deterrence to an appalling extreme. Beginning in October 2017, in a practice widely decried as inhumane, abusive, and likely to cause lasting psychological trauma to children, Customs and Border Protection separated parents detained along the border from their children¹¹⁵ Although the majority have since been reunited, it was only in response to a successful legal challenge, and hundreds of parents were deported back to their home countries without their children. In the face of criticism, the Administration asserted that asylum seekers should have entered the United States through an official port of entry, rather than crossing the border between ports, if they wanted to avoid being separated. At the same time Customs and Border Protection agents were stationed at the mid-point of bridges or at the very edge of U.S. territory at land ports to prevent those who wished to enter the U.S. to press their claims from touching ground on the U.S. side of the line. Families were forced to camp out for days or weeks waiting for an opportunity to enter.¹¹⁶

In yet another move to limit asylum seekers, Attorney General Sessions upended the asylum claims of those fleeing Honduras, El Salvador, and Guatemala with the June 2018 announcement that only those who had a credible fear of persecution by their government would qualify. Fear of gang violence or domestic violence, the basis for the majority of the successful asylum claims from these countries up to that point, would no

of Immigration Statistics. January, 2018.

115 Dickerson, Caitlin. “Hundreds of Immigrant Children Have Been Taken From Parents at U.S. Border.” *New York Times*. April 20, 2018

116 Carranza, Rafael. “Jeff Sessions to asylum seekers: Go to the ports, but at the border that’s no easy task.” *Arizona Republic*. June 8, 2018.

longer keep one from being deported.¹¹⁷ Just like the border wall, the stated goal of these changes was to convince people to abandon plans to come to the United States. White House Chief of Staff John Kelly called family separation a “tough deterrent,”¹¹⁸ and Attorney General Sessions told the National Sheriffs Association that “We do not want to separate parents from their children. If we build the wall, if we pass legislation to end the lawlessness, we won’t face these terrible choices.”¹¹⁹ But this overlooked the fact that asylum seekers are responding to a push factor—immediate fear for their lives—rather than a pull factor. There were dozens of examples of individuals who, having been denied asylum, were murdered shortly after being deported back to the countries they were fleeing.¹²⁰ It is therefore likely that persons who in years prior would have walked into a port of entry to turn themselves in and request asylum will instead attempt to enter the United States clandestinely. And with safer, urban crossing points walled off, they will be forced to cross through more dangerous terrain, where they are more likely to die. Just as the Prevention through Deterrence strategy has led to the deaths of thousands, these new policies are likely to increase the number who perish.

117 Benner, Katie, and Caitlin Dickerson. “Sessions says Domestic and Gang Violence are not grounds for Asylum.” *The New York Times*. June 11, 2018.

118 “Transcript: White House Chief Of Staff John Kelly’s Interview With NPR.” *National Public Radio*. May 11, 2018.

119 Hains, Tim. “Sessions: Building Border Wall will end Family Separation.” *Real Clear Politics*. June 18, 2018.

120 *Home Sweet Home? Honduras, Guatemala, and El Salvador’s Role in a Deepening Refugee Crisis*. Amnesty International. October, 2016. p. 37.



Border wall prototype seen through a hole in the landing mat wall. 2018. Scott Nicol.

The Push for Walls under Trump: 2017–

During the Obama Administration border walls that had been initiated under his predecessor were built, including 36 miles of bollard border wall in south Texas’ Lower Rio Grande Valley; 20 miles of levee-border wall in the Lower Rio Grande Valley; 3.6 miles of bollard border wall through California’s Otay Mountain Wilderness Area; and the berm and the border wall through Smuggler’s Gulch near the Tijuana River Estuary. There were also sections of border wall that were replaced or rebuilt during his time in office, such as the conversion of landing mat walls to bollards at Naco, Arizona and the so-called “surf fence,” where the wall enters the Pacific Ocean south of San Diego. Advocates opposed to border walls and border

community residents, particularly those who had their land taken from them during this time, were not mollified by assurances that the Obama Administration was merely finishing the work of the Bush Administration rather than proposing entirely new walls or issuing new waivers. They had hoped that unfinished border wall projects would be cancelled, thereby avoiding the negative impacts associated with them.

When Donald Trump announced his candidacy for President, he called for new border walls as a means of stopping drugs and violent criminals from entering the United States. In his acceptance speech for the presidential nomination he declared, “I am going to

build a great border wall to stop illegal immigration, to stop the gangs and the violence and to stop the drugs from pouring into our communities!”¹²¹ The false claim that immigrants are predisposed to criminal behavior, which he regularly repeated throughout his presidential campaign, is a trope that stretches back more than a century. In the decades leading up to his run for the presidency, individuals born in the United States were anywhere from two to five times as likely to be convicted of a non-immigration-related crime than immigrants residing in the U.S.¹²² Border cities immediately adjacent to Mexican sister cities, with large immigrant communities, have lower crime rates than cities of similar size that are located deeper in the U.S. interior.¹²³ The notion that new border walls would be more effective at deterring the entry of

121 “Full text: Donald Trump 2016 RNC draft speech transcript.” Politico. July 21, 2016.

122 Ewing, Walter A., Daniel E. Martínez, Rubén G. Rumbaut. “The Criminalization of Immigration in the United States.” American Immigration Council Special Report. July 2015.

123 Kubrin, Charis, Graham C. Ousey, Lesley Reid, Robert Adelman. “Immigrants Do Not Increase Crime, Research Shows.” Scientific American. February 7, 2017.

either immigrants or narcotics than earlier ones was also wishful thinking rather than empirically based. Nonetheless, Candidate Trump led chants of “Build the wall!” and “Mexico will pay!” at rally after rally, and border walls came to be the policy proposal most visibly associated with his campaign.



A woman in Calexico shows photos to a man in Mexicali. 2015. Scott Nicol.

BORDER WAR RHETORIC VERSUS REALITY

Proponents of the border wall describe the border region as a dangerous war zone, but the reality is that southwest border communities in the U.S. have consistently lower crime rates than cities in the interior of the country. Although the FBI discourages using crime statistics to compare the relative safety of cities, low crime rates in the largest border cities, San Diego and El Paso, have earned them high rankings on annual lists of “safest cities” for more than a decade in the popular press, even during years in which undocumented immigration spiked. Organized crime related violence devastating cities at Mexico’s northern border has not crossed into U.S. communities either, despite years of warnings about spillover violence from political figures and pundits. In its “2017 National Drug Threat Assessment” the Drug Enforcement Agency states unequivocally, “While drug-related murders have reached epidemic proportions in Mexico in recent years, this phenomenon has not translated into spillover violence in the United States.”¹²⁴

124 2017 National Drug Threat Assessment. U.S. Department of Justice Drug Enforcement Administration. October, 2017. p. 7.

A week after he took the oath of office President Trump issued Executive Order 13767, titled “Border Security and Immigration Enforcement Improvements.” In it he claimed that the Border Patrol was “overwhelmed” and would need an additional 5,000 agents. At that time the Border Patrol was already authorized to employ more than 21,000 agents, but due to a high rate of turnover it had for years fallen short of that target. Far from being overwhelmed, dividing the number of apprehensions by the number of on-duty agents showed that there were only 21 apprehensions per agent in fiscal year 2016. Apprehensions were already at a historically low level, on par with the early 1970s.¹²⁵ Where in recent years apprehension numbers had been touted to demonstrate the success of border enforcement activities, the new Administration ignored them in order to claim that an unchecked invasion was underway. The executive order also reiterated the Secure Fence Act’s definition of Operational Control as the prevention of all contraband and of every undocumented person from crossing the U.S. southern border, brushing aside the more realistic goal of detecting, classifying, responding to, and resolving penetrations of the border.

In keeping with his campaign promises President Trump’s Executive Order also included a call for new border walls. The president claimed that he had sufficient authority to build new border walls because the Secure Fence Act had called for “reinforced fencing along not less than 700 miles of the southwest border.” This was a minimum, not a maximum. Moreover, the Secretary of Homeland Security has claimed that she continues to have the power to waive all laws, environmental or otherwise, just as Homeland Security Secretary Chertoff had done during the Bush Administration. The only thing that the President would need from Congress was the

¹²⁵ Southwest Border Sectors Total Illegal Alien Apprehensions by Fiscal Year. U.S. Border Patrol factsheet.

funds to pay for them, since Mexico had adamantly refused to do so.



Nogales, Arizona. 2015. Scott Nicol.

2017: Border Wall Funds and What They Will Build

In the spring of 2017 Congress appropriated funds that President Trump referred to as a “down payment on the border wall.”¹²⁶ A supplemental appropriations bill contained \$341,200,000 to convert 20 miles of landing mat walls to bollard border walls; replace 20 miles of vehicle barriers with bollard walls; and install 35 gates in places where roads passed through the Lower Rio Grande Valley’s walls. For the landing mat conversions waivers were issued for the San Diego sector, beginning in the Pacific Ocean and extending inland for 15 miles, and for the city of Calexico, beginning at its port of entry and extending west for 3 miles. Following the formula set forth by the REAL ID Act, justifications for these retrofits included a declaration by the Secretary of Homeland Security that these were areas of high illegal activity, though the numbers did not bear out that assertion. The Calexico waiver

¹²⁶ Diamond, Jeremy. “White House says Budget Deal Contains Wall Funding.” CNN. May 3, 2017.

used the 2016 apprehension figure for the entire 70-mile-long El Centro sector, rather than the 3 mile section that would receive a new wall. The part of Calexico in question would have only represented some portion of the sector's total. The waiver presented this as though it were an indication that this was one of the most highly trafficked sectors, failing to mention that the El Centro sector actually came in seventh out of the 9 southern border sectors in terms of apprehension numbers that year. And while the 19,448 people apprehended in 2016 did mark an increase over the preceding three years, it was a significant decrease from the 238,126 apprehensions made there in the year 2000. Apprehensions in the El Centro sector had fallen along with the rest of the country, and the 2016 apprehension number was on par with that of 1972. The same was true for San Diego, which was also labeled "an area of high illegal entry" with 31,891 apprehensions. While this marked an increase over the prior 4 years, it was a decline over the 1986 record high of 629,656. San Diego's apprehension numbers had fallen to roughly the same number of apprehensions that had been the norm in 1968.¹²⁷ Removed from their historical context they sounded big, and could be used to give the impression of an invasion that an objective observer would be hard pressed to spot on the ground.

The second component of the 2017 appropriations bill that funded new wall construction is located in southern New Mexico. The conversion of 20 miles of vehicle barrier to pedestrian border wall south of Santa Teresa, in New Mexico just west of El Paso, has the potential to block the movement of wildlife in much the same way that pedestrian walls along other stretches of the border have. This was driven home when researchers revealed data demonstrating

¹²⁷ Southwest Border Sectors Total Illegal Alien Apprehensions by Fiscal Year. U.S. Border Patrol factsheet.

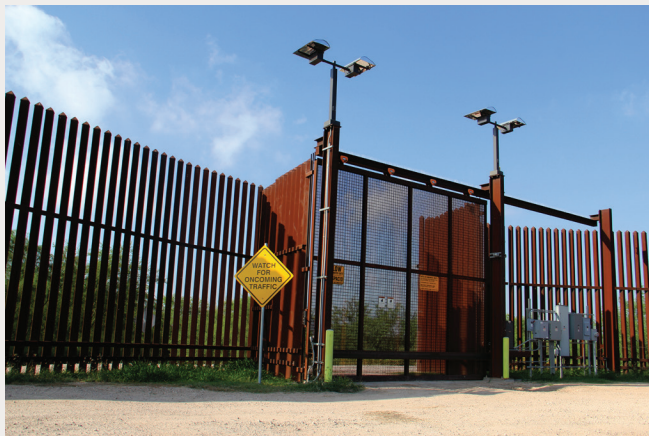


Bollard border wall sections stacked next to the landing mat wall at Naco, AZ. 2012. Scott Nicol.

that this new wall would go up in the middle of important habitat for imperiled wildlife. The Mexican wolf, a subspecies of the gray wolf listed under the Endangered Species Act, was driven close to the brink of extinction due to predator eradication efforts meant to protect livestock. Before they were completely wiped out, the last 7 Mexican wolves were taken from the wilds of northern Mexico and bred in captivity. Beginning in 1998, Mexican wolves were released into suitable habitat in both the United States and Mexico in an attempt to recover the species from the brink of extinction. In 2016 there were 113 Mexican wolves in Arizona and New Mexico.¹²⁸ On January 21, 2017 a male Mexican wolf wearing a GPS tracking collar traveled from Chihuahua, Mexico to the border, entering the United States by passing through a vehicle barrier a few miles to the west of the planned Santa Teresa wall construction project. It headed north through the Organ Mountains-Desert Peaks National Monument, passing close to Las Cruces, New Mexico two days later. It then turned south, traveling 40 miles in a day and passing back into Mexico through a gap in the border wall a few miles east of the Santa Teresa project, near El Paso and Ciudad Juarez. By the time

¹²⁸ Mexican Wolf Recovery Plan First Revision. U.S. Fish and Wildlife Southwest Region. November, 2017.

it returned to Chihuahua it had roamed across almost 600 miles in less than a week, demonstrating the wolf's wide ranging nature and need for transboundary habitat connectivity.¹²⁹ Had it encountered a pedestrian wall rather than a vehicle barrier, it would have been halted in its tracks. Efforts aimed at the recovery of the Mexican wolf throughout its historic range will require establishment of populations on both sides of the border and functional genetic exchange between them. In the United States these efforts are carried out by U.S. Fish and Wildlife under the Endangered Species Act, but with that law waived border walls that preclude transboundary movements and genetic exchange, and thereby undermine the long-term viability of their populations, can still go forward. Construction crews broke ground on the Santa Teresa border wall on April 9, 2018.



Gate between the Old Hidalgo Pumphouse World Birding Center and the Lower Rio Grande Valley National Wildlife Refuge. 2016. Scott Nicol.

The third component of the border wall “down payment” was funding for 35 gates in existing border walls in the Lower Rio Grande Valley of south Texas. When bollard walls and levee-border walls were erected there, they stood up to two miles from the Rio Grande, cutting off thousands of acres

¹²⁹ Koherga, Angela. “Border wall worries wildlife biologists.” *Albuquerque Journal*. June 1, 2018.

in the “no man’s land” between the border wall and the border. County governments and landowners had established roads accessing these properties, and in a number of the places where these roads intersected the newly built walls Customs and Border Protection left a gap the width of the road. In subsequent years the federal government installed massive gates at some of these gaps, opened by punching a code into a keypad and wide enough for a truck or a tractor (depending on the location) to pass through. Forty-two gates have already been installed, at an average cost of \$240,000 apiece. According to a document that Republicans posted touting the deal, \$49,200,000 of the omnibus funds would go towards the new gates, which averages out to \$1.4 million apiece.¹³⁰ No explanation has been given regarding this discrepancy and the dramatic increase in cost over just a few years. The gates that were previously built were intended to provide access to land behind the wall, but they raised a host of problems: Customs and Border Protection had the ability to unilaterally change the code or lock the gates; landowners complained that the gates’ opening mechanisms frequently broke down; and those who possessed the codes worried that smugglers might threaten them to get the codes.

This was not simply an issue for farmers who needed to move equipment from a field on the north side of the wall to the south. There were also homes to the south of the border wall built along the levee that could only be accessed by opening these gates. The Loop family not only farmed land between the border wall and the Rio Grande, they lived there. When Customs and Border Protection condemned a strip of their land and erected a wall, a gate was installed to provide them with access. To open the

¹³⁰ “Division F Department of Homeland Security Appropriations Act, 2017.” Available at <https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20F-%20HOMELAND%20SOM%20OCR%20FY17.pdf>

gate to run errands, or so their daughter could catch her school bus, family members entered a code. One night in January of 2017 their house caught fire. They told a reporter for CNN that while watching flames consume their home they could hear the sirens of the fire fighters outside of the gate, and the screams of pets trapped in the house. They claimed that first responders were slowed by the border wall and its locked gate, and as a result their house and a barn burned to the ground.¹³¹

The new gates would block access to more homes, including that of Pamela Taylor. She immigrated to the United States from England after World War II, and she and her husband built their home on the bank of the Rio Grande just east of Brownsville, Texas. Beside her mailbox she keeps a cooler stocked with cold water and soda, free for border crossers and Border Patrol alike. The only road accessing her home, as well as those of a handful of neighbors, is slated to receive one of the gates funded by the 2017 omnibus.



Bollard border wall north of Sabal Palms Audubon Sanctuary under construction. 2010. Scott Nicol.

¹³¹ Bronstein, Scott, Drew Griffin, Collette Richards, Jasmine Cen. “US family stranded on south side of border fence. CNN. April 4, 2017.

Another gate will cross the road that leads into the Sabal Palms Audubon Sanctuary, which preserves one of the last remaining stands of native Sabal palm forest. Before it was known as the Rio Grande and Rio Bravo, the river that is now the U.S.-Mexico border was called the Rio de las Palmas because the palm forest at its mouth was a landmark for Spanish sailors, but in subsequent centuries towns and farm fields have supplanted most of these forests. The Sabal Palm Audubon Sanctuary closed for two years after it found itself entirely walled off, only reopening when it secured support from the Gorgas Science Foundation. Visitors must pass through the gap in the wall, but there is no telling whether or not they will be able to do so once a gate is installed at that gap. Further to the west there is already a gate between the Old Hidalgo Pumphouse World Birding Center and a tract of the Lower Rio Grande Valley National Wildlife Refuge that gives an indication of what this might look like. The World Birding Center was established with funds from the small town of Hidalgo, Texas to draw birders and ecotourists to the local community, in hopes of providing a boost to the local economy. The adjacent refuge was key to this, as it had the wildlife habitat that ecotourists would come to experience. In 2009 a levee-border wall was constructed between the two, with a gap left where the walking trail went from the World Birding Center, up and over the preexisting levee, and into the National Wildlife Refuge. A few years later a gate was installed at this gap, with the promise that it would be opened during the World Birding Center’s normal hours of operation. In the intervening years it has only opened for the occasional Border Patrol vehicle, and has never given birders the once-promised access to the National Wildlife Refuge. The park is now a Birding Center in name only.

2018: Congress Funds New Border Walls

In the fall of 2017 President Trump announced that a competition would be held, in which companies vying for future border wall construction contracts would design and build 8 prototypes along the border near San Diego. Each would be 30 feet wide and stand 30 feet tall, more imposing than the barriers that he had previously derided as “little toy walls.”¹³² The request for proposals called for half of the designs to be made of concrete and half to be built from other materials. Most of the prototype walls were solid; they resembled taller versions of the levee-border walls that already stood in parts of south Texas.

If these designs were to be replicated along the border, their impermeability would pose significant problems, both for wildlife and for the conveyance of water. During flooding events debris had plugged the gaps between bollards in Arizona, which dammed water and led to natural resource damage and sections of wall being washed away. Most of these wall designs had no gaps to plug, and so would act as dams even if the water was (improbably) crystal clear and debris-free. If solid concrete walls were to be built within the Rio Grande’s floodplain they would unquestionably violate the treaty that established the river as the border. A couple of designs had bollards for their lower halves with openings between them, but these would of course be just as much of a problem as existing bollard walls. None of the new prototype designs had flood gates that could be raised to allow for the passage of water, replicating the retrofits that had been installed at great expense throughout California, Arizona, and New Mexico. Nor did they show how landowners and others might readily pass through to access

¹³² “President Trump sits down with Sean Hannity at White House.” FOX News. January 26, 2017.

property on their southern side. Customs and Border Protection determined that 6 of the 8 designs would need “substantial” or “extensive” modifications to allow for the passage of water, or for vehicles to be able to get to the other side, and the remaining two designs would need some changes as well. Half of the designs could not be constructed on a slope steeper than 15 degrees.¹³³



Prototypes north of landing mat border walls. 2018. Scott Nicol.

In March of 2018 Trump announced that he would travel to San Diego to inspect the prototypes. Customs and Border Protection officials would later tell the Government Accountability Office that, as they paraphrased it, “the evaluation of the prototypes was not intended to select a single, winning prototype design.”¹³⁴ President Trump, on the other hand, told supporters in Alabama that, “I’m going to go out and look at them personally and pick the right one.”¹³⁵ As reporters crowded around and Administration officials stood behind him, the President looked at a three-ring binder, pointed at different

¹³³ *CBP is Evaluating Designs and Locations for Border Barriers but is Proceeding without Key Information*. U.S. Government Accountability Office. July, 2018. p. 18.

¹³⁴ *Ibid.* p. 15.

¹³⁵ Gillman, Todd G. “Trump said he’ll pick a border wall design himself. Turns out, he can.” *The Dallas Morning News*. September 26, 2017.

walls, and then spoke a bit about how “When we put up the real wall, we’re going to stop 99 percent, maybe more than that.”¹³⁶ He then left California without selecting a design.

Ten days later Congress sent him an omnibus funding bill that included nearly \$1.6 billion for border walls. The legislation restricted the wall designs to those which had already been deployed by fiscal year 2017, excluding the prototype designs that contractors had erected near San Diego. There was also a provision that prevented funds from being used, or other funds from being redirected, to build border walls through the Santa Ana National Wildlife Refuge in the Lower Rio Grande Valley of south Texas. Santa Ana fronts the Rio Grande and is part of the wildlife corridor established for endangered ocelots, jaguarundi, and a diversity of endemic wildlife. Santa Ana receives more than 165,000 visitors per year, who contribute significantly to the ecotourism segment of the local economy. Word leaked in the summer of 2017 that Customs and Border Protection planned to target the refuge for the first stretch of border wall because the land was federally owned and would not require lengthy court proceedings to condemn it. Even if Congress did not provide funding for walls the Administration intended to redirect funds from other accounts. The plan was to convert the levee that ran between Santa Ana’s visitor’s center and its trail system into a levee-border wall topped with steel bollards, and with a 150-foot-wide “enforcement zone” cleared of all vegetation at its base. This led to a tremendous public outcry, both locally and nationally. Hundreds of people descended upon Santa Ana a few weeks after the news broke, holding hands on the levee to form a human wall in opposition to President Trump’s levee-border

¹³⁶ Woodward, Calvin. “AP Fact Check: Trump and the Attack of the Bowling Balls.” Associated Press. March 17, 2018.

wall. In January of 2018 hundreds again came out, holding a Save Santa Ana protest in a farm field adjacent to the entrance to the refuge. While members of Congress apparently received the message in regard to Santa Ana, activists and community members were dismayed that the larger message, calling for the rejection of funding for any and all border walls, had not been heard.



Protest at the Santa Ana National Wildlife Refuge. 2017. Scott Nicol.

Four hundred and forty-five million dollars of the funds provided in the omnibus were allocated to replace existing pedestrian border walls, tearing down remaining landing mat walls from the 1990s and putting up bollard border walls in their place. The exact locations of these walls were not described in the legislation, but some examples of these older wall designs still stand in California and Arizona. \$251 million was allocated to add a second layer of border wall to 14 miles of existing wall in the San Diego sector. The San Diego sector includes 60 miles of border, of which 46 miles currently has pedestrian walls. A few miles of those walls already have a second layer, with a patrol road running in between. Though no more information beyond which sector would be targeted for wall construction was included in the bill, it is anticipated that a portion of the new secondary walls will be appended

to the end of the existing secondary walls, in the section of wall that begins in the Pacific Ocean and extends inland. However, this would not allow for the full 14 miles. Other walls in this sector are located in mountainous terrain, through the Otay Mountain Wilderness Area or through rugged terrain near Jacumba, and it is unclear where the rest of the secondary walls are to be built. Secondary walls will entail the widening of the project's footprint, potentially pushing it beyond the 60-foot-wide Roosevelt Easement and either impacting protected state or federal lands or requiring the condemnation of private property.

New Levee-Border Walls

The Rio Grande Valley sector will receive \$445 million to convert 25 miles of existing flood control levee into levee-border wall. These walls will fill in the gaps between the 20 miles of levee-border wall that were built in 2009, according to a map that was sent from Customs and Border Protection to stakeholders in the summer of 2018. Like the levee-border walls that went up 9 years prior, this would involve excavating the river-facing side of International Boundary and Water Commission levees and replacing the sloping earth with a vertical concrete slab that would stand 18 feet tall. Alongside the levee-border wall Customs and Border Protection plans to create what they call an "enforcement zone," a 150-foot-wide area cleared of all vegetation with an all-weather patrol road, flood lights, cameras and other surveillance technology. Previous levee-border walls had a gravel road at their base that averaged only 40 feet in width, a significantly smaller footprint than the proposed 150-foot-wide enforcement zone.



Levee-border walls under construction in south Texas. 2008. Scott Nicol.

The new levee-border walls are also planned to have an additional 18 feet of bollards on top of the concrete. The heights of the levees on the U.S. and Mexican sides of the Rio Grande are supposed to be exactly the same, so that if there is an extreme flood they will overtop at the same time. It appears that Customs and Border Protection will claim that the bollards atop the levee-border walls will allow water to pass between the posts unobstructed, despite past experience with bollard walls becoming clogged with debris and damming water in Arizona. If the Mexican section of the International Boundary and Water Commission continues to reject the notion that bollards will not obstruct flood water then placing bollards on top of the levee-border wall will amount to a treaty violation.

Thousands of acres will be left in the "no man's land" between these walls and the river. More tracts of the Lower Rio Grande Valley National Wildlife Refuge which were intended to be part of a wildlife corridor for endangered ocelots and jaguarundi will either be bisected or completely cut off, and as with earlier levee-border walls this will mean that terrestrial animals will not be able to access habitat to the north, and will likely be trapped and drowned in the event of a major flood.

In addition to such direct mortality and habitat loss, more border walls threaten the viability of businesses, public spaces and recreational opportunities. For example, the Bentsen Rio Grande State Park and World Birding Center would have the levee-border wall cut off its visitor's center from its trails. A document prepared by Texas Parks and Wildlife Department suggested that the Border Patrol might establish a checkpoint, requiring all visitors to the state park to provide proof of citizenship before passing through to the south side of the wall.¹³⁷ This policing strikes residents as harsh and unnecessary, given the fact that there has never been a documented case in which park visitors have been threatened or harmed in the park.¹³⁸ The State Park communication went on to say that if this checkpoint were to cause a precipitous decline in visitorship, as might be expected, the park could be forced to close. When the Bentsen family sold 587 acres to the state of Texas for a dollar in 1944, it was with the requirement that the land be used for a park that would be open to the public, and if the park closes the ownership of the land will revert from the state to the Bentsen family.

Businesses such as the Chimney Park RV Resort, which is located entirely between the levee and the Rio Grande, will be walled off. A document prepared by the U.S. Army Corps of Engineers in April of 2017 ranked the difficulty of acquiring the real estate needed for these walls from least to most challenging, color coded red to green. It ranked the segment that would include Chimney Park as "Most Challenging," with the comment "Nice RV park, many retirees live there permanently. Western half of

¹³⁷ "Bentsen-Rio Grande Valley State Park and the Effects of the Proposed Border Wall." Texas Parks and Wildlife memo. 2017.

¹³⁸ Cortez, George. Bentsen-Rio Grande Valley State Park Superintendent. Personal Communication.

segment will impact upwards of 100 homeowners."¹³⁹ The comment goes on to contrast this with the U.S. Fish and Wildlife's refuge land in the eastern half of the segment of proposed levee-border wall, which from a real estate perspective falls into the "least challenging" category. There is no indication in the document that this would be reason to cancel the section of levee-border wall at Chimney Park. When the omnibus funding for the levee-border wall conversion was announced its owners put the RV park up for auction, but found no takers. The Riverside Club, a family-owned restaurant with a deck overlooking the Rio Grande that has been a local fixture for three decades, can only be accessed by driving on top of the levee. It too would be behind the levee-border wall, and no explanation has been given as to how customers could continue to reach it.



Fred Cavazos feeding his cattle in land that will be behind the levee-border wall. 2018. Andres Anzalduas.

Landowners who rely on income from their property will find themselves in a similar situation. Fred Cavazos rents out part of his riverfront property to vacationers and church groups, and he grazes longhorn cattle nearby. Looking at the

¹³⁹ "Proposed_Barrier_RGV_20170420 RE ranking & comments" U.S. Army Corps of Engineers Excel spreadsheet. April 20, 2017. Obtained by the Sierra Club via Freedom of Information Act request.

information provided to him, he was concerned that 2 barns and 3 houses would be at risk of demolition. This land has been in his family since the Spanish Grants of the 1760s, when the Cavazos owned roughly a third of the Lower Rio Grande Valley. Wheelchair bound, Fred received demands for access to his property from the federal government, but he has received no word as to how he or his renters would access the land if the levee is converted to a levee-border wall. Whatever the government's plans for access to his property may be, he has said that the land is too precious to sell and that he, like many others in the path of border walls, will do everything possible to fight condemnation.

Bollard Walls in the Rio Grande Floodplain

In addition to the levees that would be converted to levee-border walls, the 2018 omnibus contained \$196 million for 8 miles of bollard border wall in the Lower Rio Grande Valley. These would be built upriver from the levee-border walls, in places that do not have International Boundary and Water Commission levees. Customs and Border Protection has revealed that they will target the towns of Roma, Rio Grande City, and La Grulla. The first two of these towns had been slated for bollard walls in 2007, but that would have meant that the walls would repeatedly intrude into the Rio Grande floodplain. During a rainstorm water that would normally drain from communities into the river would instead be dammed, worsening flooding and extending the time that homes and farms remained inundated with floodwater. If the Rio Grande were to jump its banks and reach the border wall, water could be deflected into Mexico, worsening flooding in cities such as Roma's sister city Ciudad Aleman.



Debris backed up behind a bollard border wall in Arizona. 2007. Bureau of Land Management.



Debris and sediment backed up against a bollard border wall in the San Pedro Riparian National Conservation Area. 2012. Wendy Burke-Ryan.

It would be a treaty violation for either the U.S. or Mexico to erect a structure in the floodplain with the potential to deflect water.

In 2008 Customs and Border Protection cancelled its plans to build bollard border walls at Roma, Rio Grande City, and Los Ebanos (at the time there was no mention of walls at La Grulla) due to concerns about deflection and flooding.¹⁴⁰ Internal Customs and Border Protection documents obtained by the

¹⁴⁰ PF225 Change Request Number 47. May 5, 2008. Obtained by the Sierra Club via Freedom of Information Act Request.

Sierra Club through Freedom of Information Act requests show that those wall proposals were quietly revived a year or so later, and CBP began putting pressure on the U.S. half of the International Boundary and Water Commission to reverse its position opposing walls in the floodplain. As part of this effort in 2011, CBP paid for a study that purported to demonstrate that bollard border walls would not deflect water. It reached this conclusion by inputting into its flood model that bollard walls would only cause a 10% obstruction where they were parallel to the river's flow, and 25% where they were perpendicular.¹⁴¹ No explanation was given as to how these percentages were determined, and they stood in sharp contrast to a white paper produced by the same contractor 3 years earlier, which had predicted an obstruction of 85% at Roma and 67% at Rio Grande City where the walls paralleled the river, and 100% where they were perpendicular to it.¹⁴² The earlier white paper pointed to the likelihood of debris carried by flood waters clogging the spaces between bollards, in precisely the same way that they had when sections of border wall were swept away by floods at Organ Pipe Cactus National Monument in 2011 and outside of Nogales in 2014. Despite the inconsistencies between the 2008 and 2011 reports, and over the strenuous objection of the Mexican section of the IBWC, which maintained that "the fence constitutes a serious obstruction and deflection of the Rio Grande flows towards Mexico,"¹⁴³

¹⁴¹ *PF 225 Phase II Draft Drainage Report Fence Segments O1, O2, O3 2-D Hydraulic Analysis of the Rio Grande Floodplain*. Michael Baker Jr., Inc. June, 2011. p. 3. Obtained by the Sierra Club via Freedom of Information Act Request.

¹⁴² *PF 225 Fence Segments O1-O2-O3 Recommendations for Hydraulic Modeling of Impacts from a Proposed Bollard Fence within the Rio Grande Floodplains using HEC-RAS*. Michael Baker Jr, Inc. May, 2008. p. 7. Obtained by the Sierra Club via Freedom of Information Act Request.

¹⁴³ Mendoza, Luis Antonio Rascon, Principal Engineer Mexico Section, International Boundary and Water

the U.S. section acquiesced to Customs and Border Protection's request to build these border walls. This questionable reversal of the U.S. IBWC's prior rejection of walls in the floodplain set the stage for the construction of bollard border walls in Roma, Rio Grande City, and La Grulla using funds included in the 2018 omnibus bill.



Houses in Roma, Texas that could be condemned to build border walls funded by the 2018 omnibus. 2018. Scott Nicol.

Like other walls that have gone up in the Lower Rio Grande Valley, these will also fragment habitat, including tracts of the Lower Rio Grande Valley National Wildlife Refuge. The refuge tract near Roma, which is most likely to be impacted, is the home to plants listed under the Endangered Species Act, and is a part of the wildlife corridor intended to sustain and recover endangered ocelots and jaguarundi. The Roma Bluffs World Birding Center, which currently looks out at the Rio Grande, will instead offer ecotourists a view of 20- to 30-foot-tall rusting steel bollards. And landowners, many of whom have already received letters from the federal government demanding access to survey their property, will be given the choice of either selling their land or being

Commission. Letter addressed to John Merino, Principal Engineer, United States Section, International Boundary and Water Commission. December 13, 2011. Obtained by the Sierra Club via Freedom of Information Act Request.

taken to court to have it condemned. Like Fred Cavazos, many have had this land in their family since the days when Spain occupied this territory, before either the United States or Mexico existed as such. For some the taking will include not only land, but their home. A 2012 real estate report prepared by the U.S. Army Corps of Engineers predicted that in Roma, “depending on the final alignment of the fence, up to 25 residences could be impacted,” and in Rio Grande City a nursing home might have to be condemned and its residents relocated.¹⁴⁴ It is unclear from the maps that Customs and Border Protection has released to date whether those properties are still threatened. The maps they’ve presented to the public are so imprecise that the line marking the path of the Rio Grande City border wall crosses the Rio Grande into Mexico.¹⁴⁵ But there are houses in Roma that are so close to the edge of the bluff overlooking the river that there does not appear to be room for both the buildings and the border wall.

Congress Considers Billions More for Border Walls

President Trump called both the \$341,200,000 that Congress provided in 2017 and the \$1.6 billion that was provided in 2018 “down payments” on his border wall. Over time his estimate of the final cost for his border walls has climbed steeply. In January of 2018 the Administration told Congress that an initial phase of border militarization would require

¹⁴⁴ *Real Estate Plan Proposed Pedestrian Fencing Segment O-1, O-2, O-3 Starr & Hidalgo Counties, Texas*. U.S. Army Corps of Engineers. November 30, 2012. p. 5. Obtained by the Sierra Club via Freedom of Information Act request.

¹⁴⁵ Enriquez, Paul. Untitled and undated letter from Customs and Border Protection to select stakeholders. Mailed July, 2018.

\$33 billion over a decade, including \$18 billion for border walls.¹⁴⁶ This is a tremendous increase over the cost of previous walls. The total reported cost for the 654 miles of border wall—354 miles of pedestrian wall, including 37 miles of secondary wall, plus 300 miles of vehicle barrier—was \$2.3 billion.¹⁴⁷ Though far more than was spent in the past, as a result of poor planning and a lack of study of prior walls the cost put forward by the Administration may actually be an underestimate. The Government Accountability Office reported in July 2018 that “by proceeding without key information on cost, acquisition baselines, and the contributions of previous barrier and technology deployments, DHS faces an increased risk that that border wall system program will cost more than projected, take longer than planned, or not fully perform as expected.”¹⁴⁸ Nevertheless, many members of Congress appear to be willing to give President Trump what he wants. In the summer of 2018 the Senate Appropriations committee approved a Department of Homeland Security funding bill that included another \$1.6 billion to build an additional 65 miles of border wall in the Border Patrol’s Rio Grande Valley Sector. Not to be outdone, the House Appropriations Committee’s Homeland Security bill contained \$5 billion, intended to pay for 200 miles of new pedestrian border wall. As of this writing neither bill has received a floor vote.

¹⁴⁶ Miroff, Nick, and Erica Werner. “First phase of Trump border wall gets \$18 billion price tag, in new request to lawmakers.” *The Washington Post*. January 5, 2018.

¹⁴⁷ Gambler, Rebecca. *Border Security: Progress and Challenges with the use of Technology, Tactical Infrastructure, and Personnel to Secure the Southwest Border*. Testimony before the Subcommittee on Homeland Security, U.S. House of Representatives. U.S. Government Accountability Office. March 15, 2018.

¹⁴⁸ *CBP is Evaluating Designs and Locations for Border Barriers but is Proceeding without Key Information*. U.S. Government Accountability Office. July, 2018. p. 21.



Border wall between Calexico and Mexicali. 2015. Scott Nicol.

If either bill were to be signed into law, the walls that already stand provide an indication of the kinds and extent of damage that they would inflict. Though the House bill does not specify a Border Patrol sector, it is certain that most of its walls would be built in Texas, as Texas has the longest stretches of border that are as of yet unwalled, while California, Arizona, and New Mexico have seen barriers built in most places where such construction would be feasible from an engineering standpoint. In all likelihood 60 miles of the House's 200 proposed miles of wall would hit the same communities that the Senate bill targets, with much of the rest spread through other parts of the state. When added to the border walls that already stand in the Rio Grande Valley Sector, and those that were funded earlier in the year, the construction of those 60 miles would mean that all of the three counties within the Sector would be cut off from the Rio Grande. New bollard walls would likely snake in and out of the Rio Grande floodplain where there are no levees, posing flooding risks to communities on both sides of the river and violating the treaty that established the Rio Grande as the international boundary. Hundreds of homeowners, business owners, farmers, and ranchers would have their property taken from them. More tracts of the Lower Rio Grande Valley National Wildlife Refuge would be fragmented, and the dismantling of

the wildlife corridor intended to save the ocelot and the jaguarundi would be complete.

If instead of 60 miles of wall Congress provides \$5 billion for 200 miles of new border wall, these already dramatic impacts will be further magnified. On top of the damage done in the Lower Rio Grande Valley, other parts of Texas will likely be targeted. The reason that Texas received fewer miles of border wall despite accounting for the majority of the border was because land along the border there consists mostly of private property. The 56 miles of border wall built in South Texas in 2009 and 2010 required the purchase or condemnation of property from hundreds of landowners, so each mile of wall built elsewhere in the state will mean taking property from many more border residents.

Aside from the South Texas Refuge Complex that includes the Santa Ana and Lower Rio Grande Valley National Wildlife Refuges, the only federally owned parcel of significant size on Texas' southern border is Big Bend National Park. Big Bend stands in a remote corner of the border, where the Rio Grande carves out a canyon whose cliffs dwarf the comparatively puny border walls that stand elsewhere. Big Bend is located in the heart of the sector that consistently logs the fewest annual apprehensions along the southwest border. Building a border wall through Big Bend National Park would therefore appear to be completely irrational, except for one thing – the land is federally owned, so there would be no need for a lengthy court battle. A border wall through Big Bend's mountains and canyons might seem pointless, but the inefficacy of border walls is not an argument that has stopped CBP from proposing them in questionable locations in the past. The border wall that currently stands in the steep and rugged Otay Mountain Wilderness Area in California demonstrates that a wall through Big Bend National Park is not beyond the pale for Customs and Border Protection.



Border wall through Arizona / Sonora east of Nogales. 2015. Scott Nicol.

Vehicle barriers that currently line parts of the border in New Mexico and Arizona might also be converted to thirty-foot-tall pedestrian border walls if Congress approves more wall funding. Two weeks after the 2016 election, Customs and Border Protection prepared a briefing describing the locations where barriers already existed and places where more could be built. One PowerPoint slide was titled “Quickest wins,” with text suggesting “replacement of 184.4 [miles of] primary pedestrian and vehicle fence in El Centro, Tucson, and El Paso.”¹⁴⁹ Depending on which sections of vehicle barrier were replaced, the impacts on the cross-border migration of species could be much the same as that currently faced by the Mexican wolf as barriers become pedestrian walls in New Mexico. Habitat loss and fragmentation is a prime factor in driving animals such as the Mexican wolf towards extinction. Pedestrian walls also obstruct rain runoff and flash floods far more than vehicle barriers, and as examples in Arizona demonstrate, border walls acting as dams can cause tremendous damage. One of the longest stretches of existing vehicle barrier divides the Tohono O’odham Nation in Arizona from tribal

¹⁴⁹ “Overview of CBP Fence and Roads.” U.S. Customs and Border Protection Office of Facilities and Asset Management. November 23, 2106. PowerPoint obtained by the Sierra Club via Freedom of Information Act request.

members in Mexico. José Martín García Lewis, Governor General of the Tohono O’odham in Mexico, summed up the reasons he objects so strongly to a pedestrian border wall dividing his people:

It will deny our shared cultural and religious practice in the Pinacate: our Salt Ceremony and Pilgrimage, our collection of medicinal plants, visitation to burial sites and sacred cave sites, and plant life. It will, under international law, illegally sever our communications with and access to the Tohono O’odham Nation in Arizona.¹⁵⁰

The conversion of vehicle barriers into pedestrian border walls might be seen as a “quick win” by Customs and Border Protection because they do not require the condemnation of private property, but they have destructive consequences on par with other pedestrian walls.

Building more walls and creating longer and longer continuously walled areas along the southwest border will compound prior negative impacts and cause profound and lasting ecological damage on a continental scale. The negative impacts of walls on wildlife and biodiversity have been well-documented in recent reports by the Center for Biological Diversity, The Good Neighbor Environmental Board, Defenders of Wildlife, and Wildlands Network.^{151 152 153 154} The alarm was raised

¹⁵⁰ Nanez, D.M. “How tribal leaders and conservationists are trying to stop the Trump border wall.” *The Arizona Republic*. May 23, 2017.

¹⁵¹ Greenwald, Noah, et al. *A Wall in the Wild: The Disastrous Impacts of Trump’s Border Wall on Wildlife*. Center for Biological Diversity. May 2017

¹⁵² *Environmental Quality and Border Security: a 10-Year Retrospective*. Good Neighbor Environmental Board. September 2017.

¹⁵³ Bravo, Juan Carlos and Kate Davis. *Four Species on the Brink and the Wall that Would Push Them toward Extinction*. The Wildlands Network. November 2017.

¹⁵⁴ Peters, Robert and Matt Clark. *In the Shadow of the Wall: Borderlands Wildlife, Habitat and Collective*

again in a July 2018 *Bioscience* article, this time endorsed by 2,556 scientists from 43 countries.¹⁵⁵ The authors noted that more than one-third of all terrestrial and freshwater aquatic species native to the U.S. have 50% or more of their ranges south of the border. Erecting more barriers and further dividing these populations in half, or cutting off small U.S. populations entirely, could lead to a loss of the genetic diversity necessary for long-term survival. Walls also cut off species from critical food and water sources and disrupt migration patterns. These impacts are a disaster for the 93 threatened and endangered species border-wide, including jaguars, ocelots, bighorn sheep, Sonoran pronghorn, and Mexican gray wolves. Walls threaten to wipe out the progress made through decades of investment in binational conservation efforts.

The other predictable impact of building new walls, whether they cover 60 miles or 200 miles, is the deaths of border crossers. The funneling effect, as the Border Patrol has long called it, has been documented since the initiation of the Prevention through Deterrence strategy and its initial spans of steel walls and boots on the ground in the 1990s. As more walls have gone up, more people have been pushed into brutal terrain. It is a trend that continues unabated, year after year. If the Lower Rio Grande Valley sector is walled off entirely, some portion of its cross-border traffic will likely be displaced into the neighboring Laredo sector. While its apprehension numbers are currently low, as described above, the Laredo Sector has the highest rate of deaths to apprehensions of any sector on the southern border. Pushing more crossings through the border's most dangerous sector is likely to cause

more people who might have otherwise survived their journey to die agonizing deaths. If the House bill passes and the Laredo Sector is largely walled-off, crossings will be pushed into still more remote and perilous places. It is important to accept the fact that the number of people who died crossing into the United States before border walls went up and the Prevention through Deterrence strategy was implemented was relatively small. Now hundreds die every year. Border walls have contributed to the deaths of thousands of men, women, and children, and the erection of new walls will contribute to the deaths of still more.

Conservation at Risk. Defenders of Wildlife 2018.

¹⁵⁵ Peters, Robert, et al. "Nature Divided, Scientists United: US-Mexico Border Wall Threatens Biodiversity and Binational Conservation." *Bioscience*. 24 July 2018.



Border wall entering the Pacific Ocean at Tijuana. 2018. Scott Nicol.

Conclusion

Multiple U.S. administrations and elected officials on both sides of the aisle have disregarded the failure of border walls and the damages – and even deaths – that they cause because walls seem like an easy answer, and have proved to be a useful political symbol. For a segment of the public, walls feel instinctively like security. For politicians, walls lend a physical reality, concrete “proof” that they are working to keep their constituents safe. But as the United States considers building more walls, possibly even walling off the entire southwest border, and building walls along the northern border, we need to weigh the costs, not just in terms of tax dollars, but

in terms of direct, concrete deleterious impacts: the militarization and degradation of border communities, the loss of homes, farms, and businesses, the continent-wide fragmentation of wildlife habitat on a scale that has never been seen before, more catastrophic flooding, and the massive loss of human life that comes from intentionally making migration an increasingly deadly gauntlet. Current U.S. border policy disproportionately targets and harms people of color. This is unacceptable.

To get to the root of the matter it is necessary to interrogate the strategy of Prevention through Deterrence that lies at the heart of the project to build

border walls and understand that it stems from political rhetoric rather than an empirically-based analysis—rhetoric that has not been borne out by the facts over decades of ramped-up enforcement, wall building, and recent punitive actions towards immigrants by the Trump administration. It is this simple-minded, fear-based strategy that animates the escalation of enforcement and the drive to harden the border, leading to the faulty logic that if border walls and boots on the ground fail to fulfill the political promise of complete control of the border the answer will always be more boots and longer, taller walls. Ignoring the exorbitant financial and physical costs of this goalpost-moving strategy, and falsely touting unrealized benefits, continues to constrain and cloud rational decision-making and policy development, while at the same time undermining our country's commitment to civil liberties and pushing the government towards more and more inhumane policies. Going forward it is important that, before further measures are enacted

or funds are appropriated, an apolitical, empirically-based analysis of the myriad impacts caused by existing border walls, enforcement agency tactics, and federal policies, is undertaken. In order to ensure that future actions avoid unnecessary destruction of land and lives and uphold our national values, there must first be an honest and accurate accounting of what the United States has already wrought along its southwest border. Policy makers should turn away from ineffective, costly walls and fear-based tactics to developing real solutions that address root problems.

Halting the construction of border walls should be the first step taken by the United States in crafting a rational border policy. Each additional mile that is built compounds the damage inflicted upon border communities and border ecosystems, and adds to the number of people who suffer and die in the deserts of the southwest. We call for an immediate moratorium on border wall construction.

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