

COMMENTS

MOLLY BOEKELOO*

The Mexican-American Border Wall: Aftermath for Animals

Abstract	340
Introduction	341
I. History of Man-Made Infrastructure	342
II. Historical Attempts at Mitigation.....	344
III. Local Wildlife and Vegetation and the Impact of the Wall... 345	
A. Jaguars.....	346
B. Ocelot.....	347
C. Cactus Ferruginous Pygmy Owls.....	348
D. Insects.....	348
IV. Legality of Border Wall.....	349
A. Immigration.....	349
B. Civil Litigation.....	351
C. Violation of Federal Animal and Plant Protection	
Laws.....	354
1. National Environmental Policy Act of 1969	354
2. U.S. Endangered Species Act.....	357
3. Wild Free-Roaming Horses and Burros Act	359

* Molly Boekeloo is currently pursuing her J.D. at Michigan State University College of Law and holds a Bachelor of Arts in Political Science from Valparaiso University, 2016. Mrs. Boekeloo is a clinician with the Civil Rights Clinic at Michigan State University College of Law where she represents incarcerated clients in federal court whose civil rights have been violated. During her summers in law school, Mrs. Boekeloo worked as an intern at the City of Chicago Department of Law Federal Civil Rights Litigation Division and as an intern at the Office of the Illinois Attorney General. The views expressed herein are solely those of the author. Mrs. Boekeloo would like to thank Mr. Ryan Boekeloo and her family for their support, and the editors at the *Journal of Environmental Law and Litigation* for their invaluable input.

4. REAL ID Act of 2005	360
D. Violation of State Animal and Plant Protection Laws ...	361
1. California	362
2. Arizona	363
3. New Mexico	363
4. Texas.....	364
E. Violation of the International Migratory Bird Treaty Act.....	365
V. Analysis	366
Conclusion.....	369

ABSTRACT

Border walls have long been a source of division among citizens of any nation. While national security is important, many question whether a wall would, in fact, enhance national protection. In the United States, the proposed border wall between the United States and Mexico has been the subject of many dinner table conversations and continues to plague our media.¹ Few of these conversations and media outlets, however, have considered the impact this wall might have on wildlife and the implications of such impact. While man-made infrastructure has existed since the dawn of civilization, this Article seeks to explore and analyze the impact a wall might have on wildlife and vegetation. Additionally, this Article seeks to analyze the legality of the wall in terms of immigration, state law, and federal law.

¹ See Miriam Valverde, *Donald Trump's Border Wall: How Much Has Been Built?*, POLITIFACT (Aug. 30, 2019), <https://www.politifact.com/truth-o-meter/article/2019/aug/30/donald-trumps-border-wall-how-much-has-really-been/> [<https://perma.cc/YR78-CTUJ>]; Paul Sonne & Seung Min Kim, *Pentagon Approves Diversion of Military Construction Funds for Trump's Wall*, WASH. POST (Sept. 3, 2019, 5:07 PM), https://beta.washingtonpost.com/world/national-security/pentagon-approves-diversion-of-military-construction-funds-for-trumps-wall/2019/09/03/dcd35d7c-ce93-11e9-9031-519885a08a86_story.html?noredirect=on [<https://perma.cc/NK9U-MQYT>]; Z. Byron Wolf, *Trump's Amazing Evolution on How to Pay for His Border Wall*, CNN: POLITICS (Dec. 11, 2018, 5:30 PM), <https://www.cnn.com/2018/12/11/politics/trump-border-wall-tweets/index.html> [<https://perma.cc/7M5J-MTN3>].

INTRODUCTION

A wall—stretching across nearly two thousand miles of historically uninterrupted border between the United States and Mexico²—will undoubtedly bear environmental consequences in addition to social, political, and humanitarian repercussions. Whether the wall be made of concrete, steel, or the like, President Trump never gave the ramifications of the border wall a second thought, so long as it would keep “them” out of “our” country.³ While this is a divisive issue among U.S. and Mexican citizens alike, there is more at stake than a particular political party gaining footing. Wildlife experts and enthusiasts have given much thought to this proposed wall and are fearful of the impact it will have on wildlife and vegetation.⁴

Soon after taking office, President Donald Trump issued an executive order tasking the Secretary of Homeland Security with “secur[ing] the southern border of the United States through the immediate construction of a physical wall on the southern border,” defining a wall as a “contiguous, physical wall or other similarly secure, contiguous, and impassable physical barrier.”⁵ This Article assesses the federal government’s ability to circumvent state and federal wildlife protection laws through the REAL ID Act of 2005 and discusses how the Act’s waiver of wildlife protections will affect wildlife as the Trump administration proceeds with the proposed border wall construction.

This Article will analyze how the Trump administration’s ability to avoid requirements contained in wildlife protections when building its proposed border wall will affect wildlife by discussing (1) how man-made structures have historically resulted in population decline and habitat impairment, (2) existing mitigation measures’ questionable effectiveness, (3) the local vegetation and wildlife that inhabits the

² Lucy Rodgers & Dominic Bailey, *Trump Wall – All You Need to Know About US Border in Seven Charts*, BBC: NEWS (Sept. 27, 2019), <https://www.bbc.com/news/world-us-canada-46824649> [<https://perma.cc/T4AN-ERCM>].

³ Marc Fisher, *Behind Trump’s ‘Go Back’ Demand: A Long History of Rejecting ‘Different’ Americans*, WASH. POST (July 15, 2019, 4:41 PM), https://www.washingtonpost.com/politics/behind-trumps-go-back-demand-a-long-history-of-rejecting-different-americans/2019/07/15/aeb4539a-a712-11e9-a3a6-ab670962db05_story.html [<https://perma.cc/T6GD-H8HJ>].

⁴ John Schwartz, *Why a Border Wall Could Mean Trouble for Wildlife*, N.Y. TIMES (Jan. 24, 2019), <https://www.nytimes.com/2019/01/24/climate/border-wall-wildlife.html> [<https://perma.cc/B24B-HMVZ>].

⁵ Exec. Order No. 13767, 82 Fed. Reg. 8793, 8793–94 (Jan. 25, 2017).

proposed project area, (4) the regulatory background of national security along the border and how wildlife protections are exempted, and (5) the potential of international treaties to curb unfettered construction of the proposed wall.

I

HISTORY OF MAN-MADE INFRASTRUCTURE

Throughout history, man-made infrastructure has been constructed to serve a multitude of purposes ranging from border divisions to travel. The Great Wall of China, highways, and railroads are a few common examples of such infrastructure.⁶ The impacts of such infrastructure on the natural environment have been repeatedly documented. This part will discuss some of the impacts on wildlife that were identified from constructing the Great Wall of China, highways, and railroads.

The construction of the Great Wall of China, spanning about 13,000 miles, began in 220 BCE through 1644.⁷ Where intact or restored, the Great Wall of China stands between sixteen and twenty-six feet high.⁸ About one-hundred million tonnes⁹ of bricks, stone, and soil were used during construction and transported by soldiers, peasants, and animals.¹⁰ Millions of people died constructing the Great Wall of China.¹¹

The Great Wall of China, while originally constructed to defend the nation's borders, had far-reaching effects on local wildlife and vegetation.¹² For example, evidence shows that the Great Wall of China caused "significant genetic differentiation between plant species on either side of it."¹³ In fact, one study used a mountain range as a control site to analyze six different plant species from along both sides of the

⁶ Lyndsay Carlisle, *Walls and Their Impacts in a Worldwide Historical Context*, in *A BARRIER TO OUR SHARED ENVIRONMENT: THE BORDER FENCE BETWEEN THE UNITED STATES AND MEXICO* 57 (Ana Cordova & Carlos A. de la Parra eds., 2007).

⁷ *Great Wall of China*, HISTORY (Aug. 24, 2010), <https://www.history.com/topics/ancient-china/great-wall-of-china> [<https://perma.cc/U937-X3KL>].

⁸ *Id.*

⁹ A tonne is a unit of measurement used outside the United States to indicate a metric ton. *Ton vs. Tonne: What's the Difference?*, WRITING EXPLAINED, <https://writingexplained.org/ton-vs-tonnes-difference> [<https://perma.cc/6YX7-DLHH>] (last visited Mar. 1, 2020). "A tonne is larger than a U.S. ton." *Id.*

¹⁰ Kelly, *How the Great Wall Was Built – Materials and Methods*, CHINA HIGHLIGHTS, <https://www.chinahighlights.com/greatwall/fact/how-the-great-wall-was-built.htm> [<https://perma.cc/Z2JY-F7EY>] (last updated Aug. 2, 2019).

¹¹ *Id.*

¹² Carlisle, *supra* note 6, at 58.

¹³ *Id.*

Great Wall of China.¹⁴ This study found that the “genetic differentiation between the subpopulations separated by the Great Wall was significant.”¹⁵ Furthermore, this study determined that “the gene flow between subpopulations separated by the Great Wall was disrupted to a certain extent.”¹⁶ It is not entirely clear whether this disruption was caused by “wind, animal, or human activities;” however, one may easily deduce that the Great Wall of China certainly influenced this genetic disruption.¹⁷ Recent studies of wildlife impacts that result from highway and railroad construction and operation, which are implemented on a much smaller scale than the proposed border wall, show the intense impacts man-made projects can have on the environment.

Likewise, studies of highways have produced similar results showing that animals are unable to migrate, thus affecting procreation. For example, the Ventura Highway in California significantly inhibited the movements of coyotes and bobcats.¹⁸ This highway is extremely large, stretching 10 to 12 lanes, transporting over 150,000 vehicles each day.¹⁹ After placing tracking devices on 110 coyotes and 87 bobcats and monitoring them for 7 years, one study found that 52% of coyotes and 45% of bobcats crossed other major roads while 4.5% of coyotes and 11.5% of bobcats crossed the Ventura Highway.²⁰ The Ventura Highway, along with the other major roads the coyotes and bobcats encountered, were found to have been a significant barrier to their gene flow.²¹ While highways generally pose a challenge to local species, the effects of vehicle mortality are even more acute when the isolating effects of roads affect small populations and rare species.²²

Similar to highways, railroads have historically produced wildlife impacts. Construction of railroads leads to direct loss of habitat, degradation of habitat quality, habitat fragmentation, road avoidance,

¹⁴ H. Su et al., *The Great Wall of China: A Physical Barrier to Gene Flow?*, HEREDITY 212, 212 (Mar. 12, 2003), <https://www.nature.com/articles/6800237.pdf> [<https://perma.cc/5DGM-QYJW>].

¹⁵ *Id.* at 215.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ Seth P.D. Riley et al., *Fast-Track: A Southern California Freeway Is a Physical and Social Barrier to Gene Flow in Carnivores*, 15 MOLECULAR ECOLOGY 1733, 1740 (2006).

¹⁹ *Id.* at 1734.

²⁰ *Id.* at 1737.

²¹ *Id.* at 1740.

²² *Id.*

road mortality, reduced access to vital habitats, population fragmentation and isolation, as well as disruption of procreation, among other things.²³ While studies on the direct impact of railroads on animal mortality are somewhat scarce, the existing evidence shows that “[t]rain mortality can have large impacts on mammal populations, particularly for species that are already endangered, species with large home ranges and low density populations, and species with low reproductive rate.”²⁴ For example, moose, elk, and bighorn sheep are common victims of train mortality in Canada.²⁵ Additionally, in Montana, trains killed twenty-nine grizzly bears over a span of twenty-two years.²⁶ Train mortalities also affect birds, including owls and birds of prey.²⁷

The impacts of train construction parallel many of the observed impacts the Great Wall of China had on local wildlife populations. The complete Great Wall of China was constructed over approximately twenty-two centuries.²⁸ Some project that half of the proposed border wall between the United States and Mexico, about one thousand miles, will take ten years and ten thousand construction workers to construct.²⁹ While the Great Wall of China is clearly much longer than the border shared by the United States and Mexico, the environmental implications and historical ramifications of the Great Wall, highways, and railroads certainly cast a dark, foreboding shadow over President Trump’s border wall.

II

HISTORICAL ATTEMPTS AT MITIGATION

As scientists began to realize the impact man-made infrastructure has on wildlife, they launched attempts to mitigate the effects.

²³ See Scott D. Jackson, *Overview of Transportation Impacts on Wildlife Movement and Populations*, U. MASS. (2000), https://ag.umass.edu/sites/ag.umass.edu/files/pdf-doc-ppt/tws_overview_ms.pdf [<https://perma.cc/MP6H-V2QY>].

²⁴ Sara M. Santos, Filipe Carvalho & António Mira, *Current Knowledge on Wildlife Mortality in Railways*, in *RAILWAY ECOLOGY* 11, 12 (Luís Borda-de-Água et al. eds., 2017).

²⁵ *Id.* at 13–14.

²⁶ *Id.* at 14.

²⁷ *Id.* at 16.

²⁸ Gavin Van Hinsbergh, *How Long Did It Take to Build the Great Wall of China?*, CHINA HIGHLIGHTS, <https://www.chinahighlights.com/greatwall/fact/building-time.htm> [<https://perma.cc/Y5XK-MLK5>] (last updated June 11, 2019).

²⁹ Todd C. Frankel, *Build the Wall? It Could Take at Least 10 Years, Even with 10,000 Workers*, WASH. POST (Jan. 9, 2019, 6:49 AM), https://www.washingtonpost.com/business/economy/build-the-wall-it-could-take-at-least-10-years-even-with-10000-workers/2019/01/09/62d5eaae-1376-11e9-803c-4ef28312c8b9_story.html [<https://perma.cc/FET2-DNU3>].

Unfortunately, these projects have not been a wide-scale effort to alleviate effects on wildlife, and a lack of information and data challenges their effectiveness.³⁰

In North America, mitigation projects center on the movement of large mammals such as ungulates, panthers, and black bears.³¹ These projects include overpasses and tunnels specifically designed for animal movement.³² The overpasses and tunnels must be carefully designed and installed because “effectiveness is dependent on a number of variables, including: size, placement, noise levels, substrate, vegetative cover, moisture, temperature and light.”³³ While monitoring these structures via tracking beds and cameras is important, the equipment does not relay information on “species or individuals that fail or refuse to use the structure[s].”³⁴ Without this information, it is difficult to completely understand if and how often these structures are actually used by wildlife.

Overall, there is not a sufficient amount of reliable data to determine whether or not attempts to mitigate the impact of man-made infrastructure on the environment are effective. Furthermore, it is not clear whether any existing mitigation attempts could effectively apply to a thirty-foot-high border wall between the United States and Mexico. Overpasses and tunnels to benefit animal movement would likely perpetuate the exact issue the border wall is aimed at solving—illegal immigration.

III

LOCAL WILDLIFE AND VEGETATION AND THE IMPACT OF THE WALL

Many species of wildlife and vegetation inhabit the nearly two thousand miles that the United States shares with Mexico.³⁵ The border wall will affect animals, plants, and insects—threatening not only habitat destruction but also their extinction.³⁶ The structure threatens the jaguar, ocelot, cactus ferruginous pygmy owl, and countless other

³⁰ See Jackson, *supra* note 23, at 6.

³¹ *Id.*

³² *Id.*

³³ *Id.*

³⁴ *Id.* at 7–8.

³⁵ Schwartz, *supra* note 4.

³⁶ *Id.*

species that inhabit the area along the wall.³⁷ According to the Center for Biological Diversity, in May 2017, “93 threatened, endangered and candidate species would potentially be affected,” “critical habitat for 25 species” would be destroyed, and “movement of some wildlife” will be precluded.³⁸

Besides examining the harm to wildlife and vegetation that are already considered endangered, threatened, or candidate species, it is also essential to consider wildlife and vegetation with critical habitat along the border.³⁹ The construction of the border wall would likely damage, disrupt, or completely destroy these critical habitats, pushing species that are already endangered, threatened, or candidate species toward extinction. According to the Center for Biological Diversity, twenty-five species would likely experience habitat disruption.⁴⁰

A few animals that would be especially affected by the construction of a border wall include jaguars, ocelots, cactus ferruginous pygmy owls, and various insects. Both the United States and Mexico recognize jaguars and ocelots as endangered.⁴¹ While cactus ferruginous pygmy owls and various insects that inhabit the area around the border do not currently enjoy a protected status, cactus ferruginous pygmy owls were previously protected by the State of Arizona.⁴² The following sections will analyze the impacts of a potential border wall on jaguars, ocelots, cactus ferruginous pygmy owls, and insects.

A. Jaguars

The construction of an impassible border wall will likely affect jaguar survival. Jaguars range from five- to eight-feet long and can weigh up to three hundred pounds.⁴³ Since 1990, there have been 195 jaguar sightings along the U.S.-Mexico border, many occurring in Arizona and New Mexico in the United States and in Sonora and

³⁷ Noah Greenwald et al., *A Wall in the Wild: The Disastrous Impacts of Trump's Border Wall on Wildlife*, CTR. FOR BIOLOGICAL DIVERSITY 1 (May 2017), https://www.biologicaldiversity.org/programs/international/borderlands_and_boundary_waters/pdfs/A_Wall_in_the_Wild.pdf [<https://perma.cc/SV69-C6MH>].

³⁸ *Id.*

³⁹ *Id.* at 11.

⁴⁰ *Id.*

⁴¹ *Id.* at 13–14.

⁴² *Id.* at 15–16.

⁴³ *Id.* at 13.

Chihuahua in Mexico.⁴⁴ Jaguars are considered endangered in both the United States and Mexico.⁴⁵ In order to recover this species, the U.S. Fish and Wildlife Service (USFWS) planned to “provide for natural jaguar dispersal” between Mexico and the United States by ensuring the species has enough natural habitat available to disperse on their own.⁴⁶ Without the ability to freely roam between the United States and Mexico, the jaguars will have limited prey and potential mates.⁴⁷ If a completely impassable border wall is constructed, the goal of species recovery will not be attainable and the jaguar will be at an even greater risk for extinction.

B. Ocelot

Like with jaguars, without the ability to roam freely between the United States and Mexico, the continued existence of ocelots will be jeopardized. Recognized as endangered in both the United States and Mexico, ocelots are nocturnal cats that weigh about thirty pounds and are commonly identified by “two black stripes on their cheeks.”⁴⁸ No more than one hundred ocelots live in the Rio Grande Valley in Texas, and there have been five such sightings in Arizona since 2009.⁴⁹ Ocelots prey on small animals such as birds, mammals, and sometimes rattlesnakes.⁵⁰ Unfortunately, ocelots were hunted for their fur and experienced habitat destruction due “to agriculture and development.”⁵¹ If a border wall is constructed, ocelots, too, may become extinct.

⁴⁴ JAGUAR OBSERVATIONS DATABASE, <https://jaguardata.info> [<https://perma.cc/J7T5-7K3M>] (last visited Feb. 28, 2020) (search criteria: Textual Search: None; Years: From 1990 to 2019; States: Baja California Norte, Baja California Sur, Chihuahua, Coahuila, Nuevo Leon, Sonora, Tamulipas, Arizona, California, New Mexico, Texas; Location Types: all; Observation Types: all; Evidence types: DNA, first hand report, fossils, hide, hunting club record, live jaguar capture, photograph or video, plaster cast of tracks, scat or hair collected, skull and/or bones, subfossil, tracks seen and/or measured; Date Types: Exact date, month-year, season within a year, year, few years, decade, prior to a given year, half a century, nearest century; Identity types: Jaguar; Sex types: All).

⁴⁵ Greenwald et al., *supra* note 37, at 13.

⁴⁶ *Id.*

⁴⁷ *Id.*

⁴⁸ *Id.* at 14.

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*

C. Cactus Ferruginous Pygmy Owls

If a border wall is constructed, cactus ferruginous pygmy owls will also struggle to survive, just like jaguars and ocelots. Cactus ferruginous pygmy owls are small birds weighing about two-and-a-half ounces and measuring about seven-inches tall.⁵² Since 1993, “no more than 41 pygmy owls have been found in Arizona in any year.”⁵³ In Sonora, Mexico, they are more abundant; however, they are still in decline, “with their population having fallen 26 percent since 2000.”⁵⁴ Obviously, their existence is in jeopardy in both the United States and Mexico. In 1997, the cactus ferruginous pygmy owl gained protection as an endangered species in Arizona, but unfortunately, in 2006, a development company won a lawsuit on a technicality and stripped the owls of any and all protection.⁵⁵ These owls are low-flying, rarely flying higher than four-and-a-half-feet off the ground.⁵⁶ President Donald Trump’s proposed border wall, which would stand between eighteen and thirty feet, would inhibit the owl’s survival due to their inability to travel between the United States and Mexico.⁵⁷

D. Insects

Not only does the potential border wall affect wildlife and vegetation but it also affects often overlooked insects. For example, the Quino checkerspot is a small butterfly with a wingspan of an inch and a half.⁵⁸ This butterfly was once very common, “ranging from the Santa Monica Mountains to Baja California, Mexico.”⁵⁹ Due to development, the Quino checkerspot’s population “has declined by more than 95 percent.”⁶⁰ Typically, a Quino checkerspot flies to a maximum height of eight feet, so a border wall would effectively separate the Mexican population of Quino checkerspots from those in the United States.⁶¹

⁵² *Id.* at 15.

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.* at 15–16.

⁵⁶ *Id.* at 16.

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ *Id.*

This separation would cause a decrease in an already deteriorating population, threatening extinction.⁶²

In addition to Quino checkerspot, bees, which are essential for pollination, are at risk.⁶³ A reduction in bee populations⁶⁴ will lead to reduced pollination, which complicates the existence of species that depend on such pollination for survival.⁶⁵ Furthermore, the wall's powerful lights that are used to monitor people attempting to enter illegally would disrupt and potentially kill nocturnal insects such as moths.⁶⁶

IV

LEGALITY OF BORDER WALL

President Donald Trump's intent for the wall was to hamper illegal immigration; however, it will "hinder[] animal movement, pollination and seed dispersal, and ultimately the alteration of the delicate ecosystems along the border."⁶⁷ There are many problematic facets to constructing a border wall between the United States and Mexico, including but not limited to immigration concerns; civil litigation between the United States government and private landowners; and finally, the potential violations of both federal and state animal and plant protection laws. Importantly, the policies surrounding the legality of President Donald Trump's border wall waive crucial species' protections, jeopardizing wildlife that inhabit the southern border.

A. Immigration

In 1996, President Clinton signed the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA).⁶⁸ This Act was one of the many widely criticized immigration reforms of the twentieth century. The IIRIRA effectively included "sections providing for an expedited removal procedure and for the criminal prosecution of aliens

⁶² See *supra* Part I (discussing the importance of gene differentiation when constructing man-made infrastructure).

⁶³ Schwartz, *supra* note 4.

⁶⁴ *Id.*

⁶⁵ *What You Need to Know About Bees and How You Can Help to Protect Them*, EARTH DAY NETWORK, <https://www.earthday.org/campaigns/endangered-species/bees/> [<https://perma.cc/G6PA-56JU>] (last visited Dec. 15, 2019).

⁶⁶ Schwartz, *supra* note 4; see Carlisle, *supra* note 6, at 57.

⁶⁷ Carlisle, *supra* note 6, at 58.

⁶⁸ Illegal Immigration Reform and Immigrant Responsibility Act of 1996, Pub. L. No. 104-208, 10 Stat. 3009.

who re-enter or attempt to re-enter the United States within a certain period of time after being expeditiously removed.”⁶⁹ The IIRIRA was constitutionally troublesome to many in that it allowed “an individual immigration inspector to make an unreviewable, unappealable determination on an alien’s admissibility.”⁷⁰ Furthermore, section 102(c) of the IIRIRA provides a waiver of the Endangered Species Act of 1973 and the National Environmental Policy Act of 1969 in order to promote the “expeditious construction of barriers and roads.”⁷¹

In 2006, Congress passed the Secure Fence Act with the goal of taking “all actions the Secretary [of Homeland Security] determines necessary and appropriate to achieve and maintain operational control over the entire international land and maritime borders of the United States.”⁷² The Secure Fence Act authorized two aspects of border security: systematic surveillance, which is essentially a virtual fence system, and a physical fence system.⁷³ The systematic surveillance fence system included “unmanned aerial vehicles, ground-based sensors, satellites, radar coverage, and cameras.”⁷⁴ The physical fence system included “additional checkpoints, all weather access roads, and vehicle barriers.”⁷⁵ The location of these enhanced barriers included land

- (i) extending from 10 miles west of the Tecate, California, port of entry to 10 miles east of the Tecate, California, port of entry;
- (ii) extending from 10 miles west of the Calexico, California, port of entry to 5 miles east of the Douglas, Arizona, port of entry;
- (iii) extending from 5 miles west of the Columbus, New Mexico, port of entry to 10 miles east of El Paso, Texas;
- (iv) extending from 5 miles northwest of the Del Rio, Texas, port of entry to 5 miles southeast of the Eagle Pass, Texas, port of entry; and

⁶⁹ David M. Grable, *Personhood Under the Due Process Clause: A Constitutional Analysis of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996*, 83 CORNELL L. REV. 820, 821 (1998) (footnote omitted).

⁷⁰ *Id.* at 821–22 (footnote omitted).

⁷¹ MICHAEL JOHN GARCIA ET AL., CONG. RESEARCH SERV., RL32754, IMMIGRATION: ANALYSIS OF THE MAJOR PROVISIONS OF THE REAL ID ACT OF 2005, at 15 (2005).

⁷² Secure Fence Act of 2006, Pub. L. No. 109-367, § 2(a), 120 Stat. 2638.

⁷³ *See id.* § 2(a)(1)–(2).

⁷⁴ *Id.* § 2(a)(1).

⁷⁵ *Id.* § 2(a)(2).

- (v) extending 15 miles northwest of the Laredo, Texas, port of entry to the Brownsville, Texas, port of entry.⁷⁶

Interestingly, this section does not reference any consideration of potential illegal immigration of Canadians into the United States. The subsequent section, however, does require the Secretary of Homeland Security to

conduct a study on the feasibility of a state-of-the-art infrastructure security system along the northern international land and maritime border of the United States and shall include in the study—(1) the necessity of implementing such a system; (2) the feasibility of implementing such a system; and (3) the economic impact implementing such a system will have along the northern border.⁷⁷

This study of the northern border, however, was considered in terms of feasibility despite the Act previously stating that “control over the *entire* international land and maritime borders of the United States” was necessary.⁷⁸

Later, in November 2016, President Donald Trump was elected. Virtually immediately after his inauguration, President Trump began modifying both legal and illegal immigration.⁷⁹ Not only has President Trump enhanced immigration enforcement but he has also (1) “increase[ed] participation in 287(g) programs,” which authorize state and local law enforcement to assist in the removal of noncitizens; (2) reduced grants to sanctuary cities; (3) limited deferral of removals of noncitizens; (4) sought to expedite the cases backlogged in immigration courts; (5) nullified the Deferred Action for Childhood Arrivals program; and (6) explored other avenues of limiting immigration into the United States and deporting those who are undocumented.⁸⁰

B. Civil Litigation

The executive branch of the United States has been so singularly motivated to build the border wall that it systematically engages in civil litigation against private landowners who own land where the wall is

⁷⁶ *Id.* § 3(2)(1)(A)(i)–(v).

⁷⁷ *Id.* § 4(a)(1)–(3).

⁷⁸ *See id.* § 2(a) (emphasis added).

⁷⁹ *See* SARAH PIERCE & ANDREW SELEE, IMMIGRATION UNDER TRUMP: A REVIEW OF POLICY SHIFTS IN THE YEAR SINCE THE ELECTION, *MIGRATION POLICY INST.* 4 (2017).

⁸⁰ *Id.*

proposed to be built.⁸¹ Under the Fifth Amendment, the government has the power to seize property for a public use with just compensation.⁸² The United States government has a history of authorizing the military to “seize private land for a federal project.”⁸³ In 1864, the United States government used the federal power of eminent domain for the first time to construct a military arsenal in Rock Island, Illinois.⁸⁴ Eminent domain was used to acquire land to construct the Truman Dam and the Chocolate Mountain Gunnery Range during World War II.⁸⁵

Under Presidents Bush and Obama, the Army Corps, Department of Homeland Security, and U.S. Customs and Border Protection began acquiring land to install the border fence through eminent domain lawsuits.⁸⁶ For example, in each of the following cases—and others like them—the government attempted to obtain land that was privately owned to construct a border barrier: *Texas Border Coalition v. Napolitano*,⁸⁷ *North American Butterfly Association v. Nielsen*,⁸⁸ *In re Border Infrastructure Environmental Litigation*,⁸⁹ *United States v. 1.16 Acres of Land*,⁹⁰ *United States v. 14.3 Acres of Land*,⁹¹ and *United States v. 14.30 Acres of Land*.⁹² Since the beginning of 2019, cases regarding the seizure of privately owned land for border wall

⁸¹ Daniel Blue Tyx, *In South Texas, Border Wall Construction Imminent: Trump Administration Targets Rio Grande Valley for New Wall*, SIERRA (Feb. 14, 2019), <https://www.sierraclub.org/sierra/south-texas-border-wall-construction-imminent> [https://perma.cc/3KED-63F3]. See also Ryan Browne & Priscilla Alvarez, *Trump Administration Notified Owners It Will Survey Land for Border Wall*, CNN (Nov. 21, 2019), <https://www.cnn.com/2019/11/21/politics/eminent-domain-border-wall/index.html> (explaining eminent domain as the ability of the government “to acquire privately owned land if it’s for private use”).

⁸² U.S. CONST. amend. V.

⁸³ Gerald S. Dickinson, *Trump’s Militarized Land Seizure for Border Wall Is More Complicated Than ‘I Can Do It If I Want,’* HILL (Jan. 7, 2019, 3:00 PM), <https://thehill.com/opinion/white-house/424195-trumps-militarized-land-seizure-for-border-wall-is-more-complicated-than> [https://perma.cc/N7XT-CKM6].

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *Tex. Border Coal. v. Napolitano*, 614 F. Supp. 2d 54 (D.D.C. 2009).

⁸⁸ *N. Am. Butterfly Ass’n v. Nielsen*, 368 F. Supp. 3d 1 (D.D.C. 2019).

⁸⁹ *In re Border Infrastructure Envtl. Litig.*, 915 F.3d 1213 (9th Cir. 2019).

⁹⁰ *United States v. 1.16 Acres of Land*, 585 F. Supp. 2d 901 (S.D. Tex. 2008).

⁹¹ *United States v. 14.3 Acres of Land*, No. 07cv886-AJB (NLS), 2011 WL 2414348 (S.D. Cal. June 10, 2011).

⁹² *United States v. 14.30 Acres of Land*, No. 07-CV-0886, 2009 WL 3713698 (S.D. Cal. Nov. 5, 2009).

construction have flooded courts in Texas, California, Arizona, and New Mexico.⁹³

According to *Youngstown v. Sawyer*, the presidential power to seize private property exists only during a national emergency.⁹⁴ On February 15, 2019, after thirty-four full days of government shutdown, President Trump declared a national emergency regarding national security and illegal immigration to access billions of dollars to construct the wall he promised on the campaign trail that Mexico would pay for.⁹⁵ Advocacy groups, such as Public Citizen, and counties, such as El Paso County, have taken action to defend private landowners from being overpowered by the United States government.⁹⁶ One such case, filed in Washington, D.C., challenged the declaration of the national emergency, contending that no such emergency exists.⁹⁷

Ultimately, Trump's eminent domain suits are forcing citizens to leave their homes under the guise of just compensation for a border wall that may or may not actually be built.⁹⁸ On February 8, 2019, two homeowners in Texas spoke out against the border wall:

I live 165 feet from the river. If this wall is built, it's going to go through my house . . . I've lived there for 40 years, and it's been in my family for over five generations. People say, "Well, you're going to get compensated," but there's no getting compensated for your home. Our whole lives are there.⁹⁹

Further, another homeowner stated, "We've been there seven generations or more . . . We were all raised there. For us, we don't see a crisis. We're there day and night, and we don't see a dangerous border the way they say."¹⁰⁰

⁹³ Jess Bravin, *Advocacy Group Sues Over Declaration on Behalf of Landowners*, WALL STREET J. (Feb. 15, 2019, 9:20 PM), <https://www.wsj.com/livecoverage/government-shutdown-2019/card/1550283627> [<https://perma.cc/6Y9J-P2LK>].

⁹⁴ *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 700 (1952).

⁹⁵ Peter Baker, *Trump Declares a National Emergency, and Provokes a Constitutional Clash*, N.Y. TIMES (Feb. 15, 2019), <https://www.nytimes.com/2019/02/15/us/politics/national-emergency-trump.html> [<https://perma.cc/RES6-KTZS>]; Mihir Zaveri et al., *The Government Shutdown Was the Longest Ever. Here's the History.*, N.Y. TIMES (Jan. 25, 2019), <https://www.nytimes.com/interactive/2019/01/09/us/politics/longest-government-shutdown.html> [<https://perma.cc/UPZ6-82AM>].

⁹⁶ Bravin, *supra* note 93.

⁹⁷ *Id.*

⁹⁸ See *supra* Section IV(B) (discussing President Trump's difficulty obtaining funding for the border wall).

⁹⁹ Tyx, *supra* note 81.

¹⁰⁰ *Id.*

C. Violation of Federal Animal and Plant Protection Laws

Historically, the United States government recognized the importance of animal and plant preservation. In order to protect endangered and threatened species, the United States has codified numerous acts such as the National Environmental Policy Act of 1969,¹⁰¹ the U.S. Endangered Species Act,¹⁰² the Wild Free-Roaming Horses and Burros Act,¹⁰³ and the REAL ID Act of 2005.¹⁰⁴ These acts document the developing attitude of the U.S. government and its citizens over time and demonstrate that there has been a long-standing tradition in American history of the importance of an environmentally conscious mindset. The following sections will discuss the purpose of the National Environmental Policy Act of 1969,¹⁰⁵ the U.S. Endangered Species Act,¹⁰⁶ the Wild Free-Roaming Horses and Burros Act,¹⁰⁷ and the REAL ID Act of 2005,¹⁰⁸ as well as the potential impact each Act could have on the construction of a border wall between the United States and Mexico. Finally, Section 4 will investigate the REAL ID Act and its effect on the environmental statutory schemes.

1. National Environmental Policy Act of 1969

In 1969, Congress passed the National Environmental Policy Act (NEPA) with the goal to “declare a national policy which will encourage productive and enjoyable harmony between man and his environment;” “promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man;” “enrich the understanding of the ecological systems and natural resources important to the Nation;” and “establish a Council on Environmental Quality.”¹⁰⁹

¹⁰¹ National Environmental Policy Act of 1969, 42 U.S.C.A. §§ 4321–4370m-12 (Westlaw through Pub. L. No. 116-90).

¹⁰² Endangered Species Act, 16 U.S.C.A. §§ 1531–1544 (Westlaw through Pub. L. No. 116-90).

¹⁰³ Wild Free-Roaming Horses and Burros Act, 16 U.S.C.A. §§ 1331–1340 (Westlaw through Pub. L. No. 116-90).

¹⁰⁴ GARCIA ET AL., *supra* note 71, at 6.

¹⁰⁵ National Environmental Policy Act §§ 4321–4370m-12.

¹⁰⁶ Endangered Species Act §§ 1531–1544.

¹⁰⁷ Wild Free-Roaming Horses and Burros Act §§ 1331–1340.

¹⁰⁸ GARCIA ET AL., *supra* note 71.

¹⁰⁹ National Environmental Policy Act § 4321.

Congress recognized the “profound impact of man’s activity on the interrelations of all components of the natural environment” and chose to implement laws governing these interrelations.¹¹⁰

NEPA further charges the United States federal government

[t]o use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may

- 1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- 2) assure for all Americans safe, healthful, productive, and [a]esthetically and culturally pleasing surroundings;
- 3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
- 4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;
- 5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life’s amenities; and
- 6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.¹¹¹

Thus, NEPA expressly requires the federal government to consider various aspects of national projects and programs, which would normally clearly require an implementing agency to conduct an in-depth assessment and environmental impact study of the border wall.

Unfortunately, in 1996, the Illegal Immigration Reform and Immigrant Responsibility Act authorized the government to circumvent NEPA in order to construct barriers and roads to prevent illegal immigration into the United States.¹¹² Environmental impact statements are usually required by NEPA; however, in some instances, the federal government or its agencies may substitute a less rigid environmental impact assessment.¹¹³ Additionally, an agency may

¹¹⁰ *Id.* § 4331.

¹¹¹ *Id.* at (b)(1)–(6).

¹¹² *See supra* Section IV(A) (discussing the IIRIRA).

¹¹³ J. JEFFREY PEIRCE ET AL., ENVIRONMENTAL POLLUTION AND CONTROL 352 (4th ed. 1998).

issue a “[f]inding of [n]o [s]ignificant . . . [i]mpact” on the environment if “it determines by environmental assessment that the impact of the proposed Federal action will be negligible.”¹¹⁴ During an environmental impact statement, there are three phases that aim for quantitative analysis: inventory, assessment, and evaluation.¹¹⁵ “The first is a cataloging of environmentally susceptible areas, the second is the process of estimating the impact of the alternatives, and the last is the interpretation of these findings.”¹¹⁶

In the present case regarding the construction of the border wall, the IIRIRA waives the federal requirement to conduct an environmental impact statement or an environmental impact assessment.¹¹⁷ Due to this waiver, the federal government could completely evade environmental concerns under the guise of illegal immigration prevention. “Environmental impact assessment requires that a range of solutions to any given environmental pollution problem be developed, analyzed, and compared.”¹¹⁸ Without an in-depth environmental impact study of the border wall, the surrounding habitats and wildlife will suffer.

The USFWS states

[a] Federal agency is not required to consult with the Services if it determines an action will not affect listed species or critical habitat. A Federal agency is required to consult if an action “may affect” listed species or designated critical habitat, even if the effects are expected to be beneficial. In many cases, projects with overall beneficial effects still include some aspects that will adversely affect individuals of listed species and such adverse effects require formal consultation. If an agency determines that its action is not likely to adversely affect listed species or critical habitat, it can request the concurrence of the Service on this determination. If the Service agrees, consultation is concluded with a concurrence letter.¹¹⁹

If an environmental impact study were conducted, and the border wall was found to affect a protected species or habitat, the federal agency would have to consult with the USFWS for concurrence in the construction or further action.¹²⁰ However, since IIRIRA waives NEPA’s requirements, the government has no obligation to consult

¹¹⁴ *Id.*

¹¹⁵ *Id.* at 353.

¹¹⁶ *Id.*

¹¹⁷ *See supra* Section IV(A) (discussing the IIRIRA).

¹¹⁸ PEIRCE ET AL., *supra* note 113, at 360.

¹¹⁹ *Consultations: Frequently Asked Questions*, U.S. FISH & WILDLIFE SERV.: ENDANGERED SPECIES, <https://www.fws.gov/endangered/what-we-do/faq.html#8> [<https://perma.cc/UCF4-4WNA>] (last visited Mar. 1, 2020).

¹²⁰ *Id.*

with the USFWS to ensure the project would not jeopardize the existence of the species.

2. U.S. Endangered Species Act

Signed into effect in 1973 by President Nixon, the U.S. Endangered Species Act (ESA) has been in effect for over forty-five years.¹²¹ Under the ESA, it is illegal to “take any such species within the United States or the territorial sea of the United States.”¹²² Under the Act, “[t]he term ‘take’ means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”¹²³ This Act ensures the protection of any and all species declared threatened or endangered and has saved plants and animals “on the brink of extinction.”¹²⁴ The ESA recognizes the importance of species protection for ecological importance, medical needs, aesthetic and recreational purposes, and agricultural needs.¹²⁵ The Act includes three main goals: “[p]reventing listed species from being killed or harmed,” “[p]rotecting habitat essential to these species’ survival,” and “[c]reating plans to restore healthy populations.”¹²⁶

Unfortunately, like NEPA, the IIRIRA authorized the government to circumvent ESA in order to construct barriers and roads to prevent illegal immigration into the United States.¹²⁷ Thus, while the ESA was created to protect listed species, endangered species receive no protection from the border wall under the ESA because the IIRIRA effectively created a loophole for the federal government.

In 2019, Paul Enriquez, Director of Acquisition of Real Estate from the Border Wall Program Management Office for the U.S. Customs and Border Protection, contacted the USFWS for its input regarding sixty-three miles of proposed border barriers in the Pima and Cochise

¹²¹ Endangered Species Act, 16 U.S.C.A. §§ 1531–1544 (Westlaw through Pub. L. No. 116-90).

¹²² *Id.* § 1538(a)(1)(B).

¹²³ *Id.* § 1532(19).

¹²⁴ *Importance of the Endangered Species Act*, ENDANGERED SPECIES COALITION, <http://www.endangered.org/importance-of-the-endangered-species-act/> [https://perma.cc/3BAG-BHCT] (last visited Mar. 1, 2020).

¹²⁵ *Id.*

¹²⁶ *Protecting the Endangered Species Act*, ENDANGERED SPECIES COALITION, <http://www.endangered.org/campaigns/protecting-the-endangered-species-act/> [https://perma.cc/X5JE-JNLD] (last visited Mar. 1, 2020).

¹²⁷ See *supra* Section IV(A) (discussing the IIRIRA).

Counties of Arizona.¹²⁸ In this letter, the USFWS identified sixteen species considered endangered, threatened, or at risk.¹²⁹ Furthermore, the USFWS recognized that the IIRIRA waived ESA requirements and expressed concern that at least 878 known species inhabit these sixty-three miles. The USFWS identified seven potential direct effects of an impermeable border wall:

- Ceasing or restricting movements within and among populations may have deleterious demographic effects, such as isolating small populations or disrupting species' metapopulation dynamics. Restricting movement would be particularly detrimental to migratory species, species with broad home ranges, and for those that rely on connectivity with Mexico for their continued persistence in Arizona (e.g., jaguar, ocelot).
- Ceasing or reducing gene flow among or within populations may result in losing populations' genetic variability and ultimately reduce the species' long-term survival likelihood.
- Direct mortality via vehicular collisions along roads associated with the border barrier or via fence entanglement.
- Habitat reduction, loss, fragmentation and degradation (fence and road footprint; disrupting hydrological processes by fence, road, and footer placement; increased erosion and diminished water quality, and; decreased quantity of riparian and aquatic zones).
- Potential bird and bat strikes (they use visual navigation cues), such as lesser long-nosed bats and Mexican long-tongued bats, and nocturnal birds.
- Temporarily disturbing (or directly killing) species during construction; ongoing disturbance during maintenance and operation.
- Overall, increased human presence interrupts wildlife behavior that can lead to changed movement, foraging, hunting, water access, mating, and rearing young, along with changed circadian rhythm, cell and DNA repair, and other physiological stress reactions, all of which can impact fitness and survival over time.¹³⁰

¹²⁸ Letter from the Acting Assistant Reg'l Dir. of Ecological Servs., U.S. Dep't of the Interior Fish and Wildlife Serv., to Paul Enriquez, Acquisitions, Real Estate and Env'tl. Dir. for the Border Wall Program Mgmt. Office, U.S. Customs & Border Prot., and U.S. Border Patrol Headquarters 1, 1 (Jun. 28, 2019), https://media.azpm.org/master/document/2019/8/5/pdf/fws_signedresponselettertocbp_paulenriquez_70482.pdf [<https://perma.cc/QNC9-DB3F>].

¹²⁹ *Id.*

¹³⁰ *Id.* at 4–5.

The letter goes on to identify five possible indirect effects of the construction of a pedestrian fence along the border.¹³¹ Furthermore, the USFWS identifies six potential impacts of the artificial lights at night along the border.¹³² Ultimately, the USFWS recommends that Customs and Border Patrol “include design measures to allow continued wildlife movement between Arizona and Mexico to the greatest degree possible.”¹³³

3. Wild Free-Roaming Horses and Burros Act

In 1971, Congress found and declared that

wild free-roaming horses and burros are living symbols of the historic and pioneer spirit of the West; that they contribute to the diversity of life forms within the Nation and enrich the lives of the American people; and that these horses and burros are fast disappearing from the American scene.¹³⁴

The Wild Free-Roaming Horses and Burros Act charges the Secretary of the Interior with “manag[ing] wild free-roaming horses and burros in a manner that is designed to achieve and maintain a thriving natural ecological balance on the public lands.”¹³⁵ The Act even goes so far as to establish criminal liability and fines if an entity (1) “willfully removes or attempts to remove a wild free-roaming horse or burro from the public lands,” (2) “converts a wild free-roaming horse or burro to private use,” (3) “maliciously causes the death or harassment of any wild free-roaming horse or burro,” (4) “processes or permits to be processed into commercial products the remains of a wild free-roaming horse or burro,” (5) “sells, directly or indirectly, a wild free-roaming horse or burro maintained on private or leased land,” or (6) “willfully violates a regulation issued pursuant to this Act.”¹³⁶ Clearly, the Wild Free-Roaming Horses and Burros Act was intended to have broad authority over wild horses and burros, with serious implications for violations.

¹³¹ *Id.* at 5.

¹³² *Id.* at 5–6.

¹³³ *Id.* at 6.

¹³⁴ Wild Free-Roaming Horses and Burros Act, 16 U.S.C.A. § 1331 (Westlaw through Pub. L. No. 116-90).

¹³⁵ *Id.* § 1333(a).

¹³⁶ *Id.* § 1338(a)(1)–(6).

As of March 2019, there were an estimated 88,090 wild horses and burros across 10 western states.¹³⁷ In California, the westernmost state abutting the U.S.-Mexico border, there were 7,332 wild horses and 4,727 wild burros.¹³⁸ In Arizona, there were 534 wild horses and 6,915 wild burros.¹³⁹ In New Mexico, there were 241 wild horses and no wild burros.¹⁴⁰ While wild horses and burros are not in fact protected in the sense of endangerment or threat of extinction, the federal government nonetheless has a duty to protect these animals under the Wild Free-Roaming Horses and Burros Act. A border wall could separate wild horses and burros in the United States from those in Mexico, possibly hurting their ability to procreate.¹⁴¹

4. REAL ID Act of 2005

The REAL ID Act of 2005 renders the aforementioned Acts useless. In relevant part, the REAL ID Act amends the relevant Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) of 1996 to “authorize (but not require, as in earlier versions) the Secretary of Homeland Security to waive all legal requirements as he determines necessary, in his sole discretion, to ensure the expeditious construction of barriers and roads under IIRIRA § 102.”¹⁴² According to this amendment, the term “‘legal requirements’ refers to ‘any local, state or federal statute, regulation, or administrative order.’”¹⁴³ Furthermore, the REAL ID Act mandates “federal judicial review of a cause of action or claim alleging that a waiver decision or action taken by the Secretary of Homeland Security violates the U.S. Constitution.”¹⁴⁴ Such a claim may be brought only within sixty days of decision by the Secretary, and “[a]ppellate review may only be sought by a petition for a writ of certiorari to the U.S. Supreme Court.”¹⁴⁵

In addition, the REAL ID Act required the Under Secretary of Homeland Security for Border and Transportation Security to work with the Under Secretary of Homeland Security for Science and

¹³⁷ *Herd Area and Herd Management Area Statistics*, U.S. DEP’T INTERIOR BUREAU LAND MGMT. (Mar. 1, 2019), https://www.blm.gov/sites/blm.gov/files/2019_Final_HAHMA_Stats_05022019_final_508.pdf [<https://perma.cc/PA6K-UNQW>].

¹³⁸ *Id.*

¹³⁹ *Id.*

¹⁴⁰ *Id.*

¹⁴¹ *Cf.* Greenwald et al., *supra* note 37, at 16.

¹⁴² GARCIA ET AL., *supra* note 71, at 16.

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

Technology and the Under Secretary of Homeland Security for Information Analysis and Infrastructure Protection to “study the technology, equipment, and personnel needed by field offices of the Bureau of Customs and Border Protection to address security vulnerabilities within the United States.”¹⁴⁶ There is no mention of the effects this technology or equipment would have on wildlife anywhere in the REAL ID Act.

Each administration has repeatedly used the REAL ID Act along with the IIRIRA to circumvent any and all animal and vegetation protection laws. Under President George W. Bush, “then-Secretary Michael Chertoff utilized this authority five times to waive the National Environmental Policy Act, Endangered Species Act and other laws to construct the nearly 700 miles of wall and other barriers that have been constructed to date.”¹⁴⁷ The Trump administration has used the REAL ID Act at least five times to construct portions of the border wall, thereby circumventing wildlife protection laws.¹⁴⁸ For example, on January 22, 2018, the former Secretary of Homeland Security, Kirstjen Nielsen, invoked the REAL ID Act to build portions of the border wall in southeastern New Mexico.¹⁴⁹ Again, on October 10, 2018, Nielsen used the REAL ID Act to justify construction of border barriers in the Rio Grande Valley in Cameron County, Texas.¹⁵⁰ Only one day later, Nielson again invoked the REAL ID Act to construct more border barriers in the Rio Grande Valley in Hidalgo County, Texas.¹⁵¹

D. Violation of State Animal and Plant Protection Laws

While federal law supersedes state law according to Article VI of the U.S. Constitution,¹⁵² the Supremacy Clause, it is still important to consider the laws passed by the states abutting the Mexico border because these laws reveal the values of the citizens who reside in these states.

¹⁴⁶ *Id.* at 43.

¹⁴⁷ Greenwald et al., *supra* note 37, at 1.

¹⁴⁸ Jimmy Tobias, *The Little-Known Law That the Trump Administration Is Using to Build a Border Wall*, PACIFIC STANDARD (Jan. 21, 2019), <https://psmag.com/environment/the-little-known-law-that-the-trump-administration-is-using-to-build-a-border-wall> [<https://perma.cc/WT48-UGXS>].

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*

¹⁵¹ *Id.*

¹⁵² Michael D. Ramsey, *The Supremacy Clause, Original Meaning, and Modern Law*, 74 OHIO ST. L.J. 559, 560 (2013).

1. California

California, one of the most fruitful states in terms of animal species, has taken great measures to protect its wildlife and vegetation.¹⁵³ The California legislature created the California Endangered Species Act to “conserve, protect, restore, and enhance any endangered species or any threatened species and its habitat.”¹⁵⁴ Furthermore, the legislature found that it was the purpose of the State, “consistent with conserving the species, to acquire lands for habitat for these species.”¹⁵⁵ In fact, as of January 1, 2019, the California legislature amended section 2053(a):

The Legislature further finds and declares that it is the policy of the state that *public* agencies should not approve projects as proposed which would jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy.¹⁵⁶

Prior to amending section 2053(a), it read in relevant part, “it is the policy of the state that *state* agencies should not approve projects as proposed which would jeopardize the continued existence of any endangered species.”¹⁵⁷ This amendment is significant because it shows a clear indication that the State recognized a need to adapt to the federal government’s infringement on the State’s right to protect animals and wildlife.

This is not the only law in California that aims to protect wildlife and vegetation. The Fish and Game Code outlines “permits to take plant or animal life for scientific or educational purposes;” “[n]ative plant protection;” “[p]rotection of birds’ nests;” fully protected birds, mammals, reptiles, amphibians, and fish; the takings of migratory birds; and standards for environmental quality.¹⁵⁸ Additionally, Title 14

¹⁵³ See generally *Living with Wildlife*, CAL. DEP’T FISH & WILDLIFE, <https://www.wildlife.ca.gov/living-with-wildlife> [<https://perma.cc/8S9T-LZPH>] (last visited Mar. 1, 2020) (providing resources educating California residents on threats to wildlife, removal of nuisance wildlife from residential properties, reporting sick, injured, or orphaned wildlife, etc.).

¹⁵⁴ CAL. FISH & GAME CODE § 2052 (West, Westlaw through Ch. 870 of 2019 Reg. Sess.).

¹⁵⁵ *Id.*

¹⁵⁶ *Id.* § 2053(a) (emphasis added).

¹⁵⁷ CAL. FISH & GAME CODE § 2053 (1984) (amended 2019) (emphasis added).

¹⁵⁸ *Laws and Regulations Directing Environmental Review and Species Take Programs*, CAL. DEP’T FISH & WILDLIFE, <http://www.dfg.ca.gov/wildlife/nongame/regcode.html> [<https://perma.cc/UYE2-ZG2B>] (last visited Mar. 1, 2020).

of the California Code of Regulations outlines “[s]cientific [c]ollecting [p]ermits” and “[p]ermits to take fully protected species for scientific purposes,” among other regulatory permits.¹⁵⁹ California clearly enacted measures to protect its wildlife, proving that the State values wildlife, and the federal government should not infringe upon a State’s individual desires.

2. Arizona

Like many other states, Arizona also has state laws that seek to protect its wildlife and vegetation. In fact, “Arizona assesses a monetary civil penalty for the possession or taking of listed species of wildlife and endangered/nongame wildlife (including eagles). This fine goes to the state wildlife theft prevention fund and is in addition to any other fine or penalty assessed by law.”¹⁶⁰ Furthermore, under Arizona’s Game and Fish Code, there are restrictions including “the authority of the Department of Game and Fish and the Game and Fish Commission to regulate wildlife, enforcement authority and duties, definitions, restrictions on the possession of wildlife, licenses, and violations.”¹⁶¹

3. New Mexico

New Mexico also has a variety of laws that aim to protect and ensure the continued existence of wildlife and vegetation. Under the New Mexico Wildlife Conservation Act, “[v]iolation of the Act constitutes a misdemeanor and can incur a penalty from \$50 - 1,000[,] depending on the categorization of the species taken.”¹⁶² New Mexico specifically created a conservation services division within the Department of Game and Fish for

- (1) management, enhancement, research and conservation of public wildlife habitat;
- (2) the lease, purchase, enhancement and management of state wildlife habitat;
- (3) assisting landowners in improving wildlife habitats;

¹⁵⁹ *Id.*

¹⁶⁰ Animal Legal & Historical Center, *Arizona Statutes*, MICH. ST. U.C.L., <https://www.animallaw.info/statutes/us/Arizona> [<https://perma.cc/MTT7-CRMZ>] (last visited Mar. 1, 2020).

¹⁶¹ *Id.*

¹⁶² Animal Legal & Historical Center, *Statutes*, MICH. ST. U.C.L., <https://www.animallaw.info/statute/nm-endangered-species-chapter-17-game-and-fish-and-outdoor-recreation> [<https://perma.cc/ZK82-8HNQ>] (last visited Mar. 15, 2020).

(4) development of educational programs related to conservation of wildlife and the environment, including the expanded dissemination of wildlife publications; and

(5) communication and consultation with federal and other state agencies, local governments and communities, private organizations and affected interests responsible for habitat, wilderness, recreation, water quality and environmental protection to ensure comprehensive conservation services for hunters, anglers and nonconsumptive wildlife users.¹⁶³

New Mexico additionally created a Reserve Conservation Officer position within the Department of Game and Fish,¹⁶⁴ charged with the duties of “enforc[ing] laws and valid regulations of the state game commission relating to game and fish and perform[ing] such duties with respect to wildlife management and conservation education as may be assigned to them from time to time by the department of game and fish.”¹⁶⁵

4. Texas

Texas, the state with the most land abutting the Mexico border, has taken measures to ensure the safety of its wildlife and vegetation. Under the Texas Parks and Wildlife Code, Texas adopts all species listed on the federal Endangered Species Act List and all those designated within the State as protected.¹⁶⁶ More specifically,

[n]o person may capture, trap, take, or kill, or attempt to capture, trap, take, or kill, endangered fish or wildlife nor may he or she possess, sell, distribute, or offer or advertise for sale those species (unless allowed as described in the subchapter). Notably, this chapter excepts from its provisions coyotes, cougars, bobcats, prairie dogs, and red foxes (with no mention as to what occurs in the event they become endangered). Violation of the provisions results in a Class C Parks and Wildlife Code misdemeanor for the first offense, a Class B misdemeanor for the second offense, and a Class A misdemeanor for subsequent offenses.¹⁶⁷

¹⁶³ N.M. STAT. ANN. § 17-1-5.1 (West, Westlaw through 2019 Reg. Sess.).

¹⁶⁴ *See id.* § 17-1-7.

¹⁶⁵ *See id.* § 17-1-9.

¹⁶⁶ Animal Legal & Historical Center, *Statutes*, MICH. ST. U.C.L., <https://www.animallaw.info/statute/tx-endangered-species-chapter-68-endangered-species> [<https://perma.cc/D5ME-E59D>] (last visited Mar. 15, 2020).

¹⁶⁷ *Id.*

In November 2015, Texas adopted a constitutional amendment recognizing “the right of the people to hunt, fish, and harvest wildlife subject to laws that promote wildlife conservation.”¹⁶⁸

While states attempted to protect themselves from federal bulldozing by passing state laws protecting wildlife and vegetation, the federal government continues to find ways to steamroll states such as Arizona, California, New Mexico, and Texas.¹⁶⁹ By using laws such as the IIRIRA and the REAL ID Act to circumvent other federal and state laws, the Trump administration is effectively creating animosity and hatred for the federal government. After the longest government shutdown in history over funding for the border wall, American citizens were not only affected directly through the inability of the federal government to pay government salaries but now realize that the Trump administration is willing to go to great lengths to accomplish its goals, even to the detriment of hundreds of local innocent wildlife and vegetation species.

E. Violation of the International Migratory Bird Treaty Act

In addition to the potential violation of various federal and state statutes, the United States government may also find itself in violation of international treaties aimed at protecting animal and wildlife species such as the Migratory Bird Treaty Act.¹⁷⁰ This Act was signed by Mexico and the United States in 1936.¹⁷¹ The purpose of the Act was to protect migratory birds “in their movements [a]cross the United States of America and the United Mexican States, in which countries they live temporarily.”¹⁷² In this original Act, it is clear that both the Mexican government and the United States government recognize that “it is right and proper to protect the said migratory birds, whatever may be their origin, in the United States of America and the United Mexican States, in order that the species may not be exterminated.”¹⁷³ Among restrictions on hunting seasons and methods of hunting allowed, the United States and Mexico agreed to

¹⁶⁸ Animal Legal & Historical Center, *Statutes*, MICH. ST. U.C.L., <https://www.animallaw.info/statute/tx-initiatives-proposition-6-right-hunt-fish-and-harvest-wildlife> [<https://perma.cc/SL72-Y35U>] (last visited Mar. 15, 2020).

¹⁶⁹ See *supra* Section IV(C)(4) (discussing the REAL ID Act of 2005).

¹⁷⁰ Convention for the Protection of Migratory Birds and Game Mammals, Mex.-U.S., Feb. 7, 1936, 50 Stat. 1311.

¹⁷¹ *Id.*

¹⁷² *Id.*

¹⁷³ *Id.*

establish laws, regulations and provisions to satisfy the need set forth in the preceding article, including: . . . The prohibition of the killing of migratory insectivorous birds, except when they become injurious to agriculture and constitute plagues, as well as when they come from reserves or game farms: provided however that such birds may be captured alive and used in conformity with the laws of each contracting country.¹⁷⁴

The Act identified thirty-one species of migratory birds to be protected.¹⁷⁵

In 1997, both the United States and Mexico reaffirmed their “commitment to achieving the purposes and objectives of the Convention.”¹⁷⁶ Further, both countries “committed to the long-term conservation of shared species of migratory birds for their nutritional, social, cultural, spiritual, ecological, economic, and aesthetic values through a more comprehensive international framework that involves working cooperatively to manage their populations.”¹⁷⁷ The difference, however, is that the United States expressed a desire to “provide for the customary and traditional taking of certain species of migratory birds and their eggs for subsistence use by indigenous inhabitants of the State of Alaska in designated subsistence areas.”¹⁷⁸ This alteration provided for an exception for the State of Alaska only from the closed season for wild ducks and the harvest of their eggs.¹⁷⁹

V ANALYSIS

As history has shown, a border wall spanning almost two thousand miles between Mexico and the United States would be detrimental to local wildlife and vegetation. Man-made infrastructure, such as the Great Wall of China, railroads, and highways, has shown that barriers to migration, habitat, sustenance, water, mates, pollination, and much more create many issues for local wildlife and vegetation. As a result of these historical, man-made boundaries, species have experienced endangerment, extinction, genetic differentiation, and many other hardships.

¹⁷⁴ *Id.*

¹⁷⁵ *Id.*

¹⁷⁶ Protocol with Mexico Amending the Convention for the Protection of Migratory Birds and Game Mammals, Mex.-U.S., May 5, 1997, S. TREATY DOC. NO. 105-26.

¹⁷⁷ *Id.* at 2.

¹⁷⁸ *Id.*

¹⁷⁹ *Id.*

Genetic differentiation within species is vital for their continued existence.¹⁸⁰ If a complete, impassable border wall is constructed, and species were limited to procreation with only a small population, inbreeding may occur.¹⁸¹ Ultimately, this inbreeding could lead to extinction of the wildlife and vegetation that inhabit the land surrounding the border.¹⁸² Inbreeding has been shown as a contributing factor to extinction in wild populations of butterflies, plants, and island populations.¹⁸³ Furthermore, “[c]omputer simulations indicate that inbreeding is likely to increase extinction risk in most outbreeding species in the wild.”¹⁸⁴ While inbreeding may be useful in some contexts—such as in lab settings where similar genetic makeups enable more accurate and attainable studies—inbreeding is not useful in the environment surrounding the border the United States shares with Mexico.¹⁸⁵ One study found that “inbred beetles were more likely to make bad decisions amid developing circumstances—at a cost to themselves and their offspring.”¹⁸⁶ In other words, inbred animals are detrimentally incapable of adequately responding to changes in their environments.¹⁸⁷

Another study surveyed the common fruit fly,¹⁸⁸ “a widely recognized and frequently used model species for investigating related problems in conservation, population and quantitative genetics[,]” . . . “to determine whether extinction risk under inbreeding is greater in stressful than in benign environments, and to determine whether variable stress environments are more deleterious than environments with a constant stress.”¹⁸⁹ This study had three main findings:

¹⁸⁰ See *supra* Part I (discussing the importance of considering gene differentiation between subpopulations of species when constructing man-made infrastructure).

¹⁸¹ David H. Reed et al., *Inbreeding and Extinction: The Effect of Environmental Stress and Lineage*, CONSERVATION GENETICS 301, 301 (2002).

¹⁸² *Id.*

¹⁸³ *Id.*

¹⁸⁴ *Id.* (footnote omitted).

¹⁸⁵ See Alfie Shaw, *What Are the Effects of Inbreeding?*, BBC EARTH, <https://www.bbcearth.com/blog/?article=what-are-the-effects-of-inbreeding> [<https://perma.cc/43U6-VCVD>] (last visited Mar. 1, 2020).

¹⁸⁶ University of Edinburgh, *Inbred Animals Face Greater Threat from Changes to Environment*, PHYS.ORG (June 27, 2018), <https://phys.org/news/2018-06-inbred-animals-greater-threat-environment.html> [<https://perma.cc/ZJ6L-7LSE>].

¹⁸⁷ *Id.*

¹⁸⁸ Conrad Miller, *Drosophila Melanogaster*, ANIMAL DIVERSITY WEB, https://animaldiversity.org/accounts/Drosophila_melanogaster/ (last visited Mar. 1, 2020).

¹⁸⁹ Reed et al., *supra* note 181, at 302.

First, extinction risk under inbreeding was greater in stressful environments than in a benign one. Second, there was no significant difference in extinction risk between environments with respect to whether the stress was variable or constant, when the stresses were approximately equal in their deleterious [e]ffects on fitness. Third, lineage effects on inbreeding depression were detected.¹⁹⁰

As humans have greater impacts on habitats, the wildlife environment becomes more stressful, and when an environment is stressful, populations become more susceptible to inbreeding.¹⁹¹ Clearly, the construction of a border wall ranging from thirty to fifty-five feet would be a major disruption to habitat, undoubtedly causing stress to local species.¹⁹² Due to environmental stress resulting from the noise pollution, light pollution, and physical construction, local populations would be forced to inbreed, causing genetic disruption.¹⁹³

One proposal to pacify eco-friendly critics of the wall includes “slats” instead of a completely solid wall.¹⁹⁴ This is problematic, as some animals may become stuck between the slats when attempting to pass through—some may even die as a result.¹⁹⁵ Other animals would not even attempt to pass through and would avoid the man-made infrastructure altogether.¹⁹⁶ An animal impact study is of the utmost importance to determine the impact of an impassible or semipermeable wall. This study should be completed in cooperation with the USFWS to determine the true effects of the border wall, whether those effects be short term or long term.

The United States has historically recognized the importance of preserving various animal and plant species through federal and state acts and international treaties.¹⁹⁷ Codifications preserving these species reflect a nationwide concurrence that the preservation of animals and wildlife is an important goal of the American people.

While partial border infrastructure already exists along nearly half of the border, a complete and impassible wall will cause the extinction of many species, along with a significant loss of efficacy in state,

¹⁹⁰ *Id.* at 304.

¹⁹¹ *Id.* at 305.

¹⁹² *See id.*

¹⁹³ *See supra* Part I (discussing the importance of considering gene differentiation between subpopulations of species when constructing man-made infrastructure).

¹⁹⁴ Schwartz, *supra* note 4.

¹⁹⁵ *Id.*

¹⁹⁶ *Id.*

¹⁹⁷ *See supra* Section IV(C) (discussing the various federal and state acts and international treaties codified by the United States).

federal, and international acts and treaties. Without conducting a complete and in-depth animal impact study before the impassible wall is completed, the United States government is risking its own efficacy by skirting and circumventing laws specifically intended to protect the species the wall will surely annihilate. By enacting the REAL ID Act, the government effectively skirted its own prior laws, which reflected the wants of American people, to build a border wall, which as of February 2019, sixty percent of Americans opposed.¹⁹⁸

CONCLUSION

According to Aaron D. Flesch, a research scientist at the University of Arizona, “endlessly inventive humans could scale a wall. But [a wall] would block many four-legged creatures.”¹⁹⁹ The National Wildlife Federation has called the creation of this man-made infrastructure “one of the biggest potential ecological disasters of our time.”²⁰⁰ If built, many scientists speculate that both the United States and Mexico will experience the extinction of many endangered and at-risk species along the border.²⁰¹ As history has shown through man-made infrastructure, like the Great Wall of China, railroads, and highways, species will be risked and slaughtered throughout construction and after the completion of the wall. The federal government should heed the warnings of scientists and scholars and investigate the effects this wall will have on wildlife more deeply, or else the millennial generation will witness mass extinction of species at the hands of its parents’ generation.

¹⁹⁸ Jim Norman, *Solid Majority Still Opposes New Construction on Border Wall*, GALLUP (Feb. 4, 2019), <https://news.gallup.com/poll/246455/solid-majority-opposes-new-construction-border-wall.aspx> [<https://perma.cc/H44R-NLHM>].

¹⁹⁹ Schwartz, *supra* note 4.

²⁰⁰ *Id.*

²⁰¹ *Id.*

