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## SICK UNCERTAINTY: HOW EXECUTIVE THREATS TO EPA PROGRAMS FOR THE U.S.-MEXICO BORDER THREATEN ENVIRONMENTAL JUSTICE

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### Abstract

*The U.S.-Mexico Border is in the midst of a decades-long environmental health crisis. Unsafe and discriminatory land use practices, pollution, and lacking infrastructure are among the problems causing Border residents to become sick. They suffer from “third world” health afflictions in the Southwest corner of the first world. Because residents of racial minority and low socio-economic status experience the brunt of environmental harm at the Border, this crisis is an obvious source of environmental injustice. Despite these well-documented, ongoing environmental injustices, two Environmental Protection Agency (EPA) programs aimed at solving problems along the Border consistently find themselves on the EPA’s budgetary chopping block. Those programs, Border 2020 and the U.S.-Mexico Border Water Infrastructure Grant Program, are relatively inexpensive programs targeted at improving some of the region’s most urgent environmental needs. This paper uses Professor Robert Kuehn’s four-part framework for exploring environmental justice issues to illustrate how a region in urgent need of environmental repair might suffer if its government makes good on the continued threat to environmentally divest from repairing the severe problems there.*

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## I. Introduction

In Ernest Thayer's 1888 poem "Casey at the Bat," Mudville's slugger Casey steps up to the plate. His team is down two runs, and a "sickly silence" falls over the crowd.<sup>2</sup> Casey is Mudville's best—albeit only—chance to claim an unlikely victory. By the end of Thayer's thirteen stanzas, Casey swings and misses three times. The loss launches the Mudville fans into longing. They know the exuberance of victory, but they can't experience it:

Oh, somewhere in this favored land the sun is shining bright;  
the band is playing somewhere, and somewhere hearts are light,  
and somewhere men are laughing, and somewhere children shout;  
but there is no joy in Mudville—mighty Casey has struck out.<sup>3</sup>

Imagining life in the greener pastures of winning fans magnifies the Mudville crowd's sadness. Perhaps more than a base hit, they grieve what passed them by as quickly as a fastball. "Casey at the Bat" invokes Americana, but it also invokes the mourning of a missed opportunity.

In a way, Congressional representatives for districts along the U.S.-Mexico Border<sup>4</sup> (the Border) are the Caseys of their states and cities.<sup>5</sup> They have spent years advocating to avoid a high-stakes missed opportunity. How high of stakes? According to an April 29, 2019 letter co-written by California Senators Kamala Harris and Dianne Feinstein, the stakes are as high as life and death. Border communities are experiencing a transboundary pollution crisis, linked to problems such as bacterial infections from untreated sewage exposure, high rates of pulmonary and heart disease, and stomach illness.<sup>6</sup>

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<sup>2</sup> Ernest Lawrence Thayer, *Casey at the Bat*, POETRY FOUNDATION, <https://www.poetryfoundation.org/poems/45398/casey-at-the-bat> (last visited March 26, 2019).

<sup>3</sup> *Id.*

<sup>4</sup> This article uses the term "Border" to refer to the region 100 kilometers immediately north and south of the geopolitical boundary between the United States and Mexico. This is the way the Border region is defined by the La Paz Agreement, a cooperation between the two nations that began in 1983 to cooperatively fight environmental harm on both sides of the Border. For further information about the La Paz Agreement, see generally U.S. Env'tl Prot. Agency, *Protecting the Environmental and Public Health in the U.S. - Mexico Border Region*, BORDER 2020 (2017), [https://www.epa.gov/sites/production/files/2017-11/documents/final\\_tri-fold\\_english\\_border\\_brochure\\_web.pdf](https://www.epa.gov/sites/production/files/2017-11/documents/final_tri-fold_english_border_brochure_web.pdf).

<sup>5</sup> This article uses the term "Border states" as an umbrella term for California, Arizona, New Mexico, and Texas. Border scholarship also uses the term "Border states" to refer to the ten states along the Border inclusive of Mexican States. The lexicon of this article is not intended to question that terminology; it is simply a matter of scope.

<sup>6</sup> Letter from Senators Kamala Harris and Dianne Feinstein, and Representatives Juan Vargas, Susan Davis, Mike Levin, and Scott Peters to Jayne Harkins, Commissioner of the International Boundary and Water Commission, Andrew Wheeler, Administrator of the Environmental Protection Agency, R.D. James, Assistant Secretary of the Army, Mike Pompeo, Secretary of State, and Kevin McAleenan, Commissioner of U.S. Customs and Border Protection (April 29, 2019) [hereinafter *Harris letter*].

The Environmental Protection Agency (EPA) has at least two programs focused on improving the Border environment: the Border 2020 program (Border 2020) and the U.S.-Mexico Border Water Infrastructure Grant Program (BWIP).<sup>7</sup> The letter from Harris and Feinstein called out the utility of the “promising” BWIP in addressing an “alarming” and well-documented environmental crisis.<sup>8</sup> Harris and Feinstein are far from alone in advocating for these programs.<sup>9</sup> Since 2017, representatives from the San Diego area have lobbied for increased BWIP funding to address contamination from raw sewage in the Tijuana River Valley and Pacific Ocean.<sup>10</sup> In March 2018, House members from California, New Mexico, and Texas authored a public letter to propose millions more for BWIP and Border 2020 than Trump’s budget.<sup>11</sup> Their letter summarized the critical progress the programs have made in a region where environmental harms are felt primarily by poor, Hispanic, and Native American communities by stating: “Underserved border communities are still challenged by existing infrastructure gaps and would greatly benefit by continued support for these programs.”<sup>12</sup>

Despite the representatives’ obvious enthusiasm for BWIP and Border 2020, advocating for their survival has become their annual challenge as they fear the Trump Administration does not share their enthusiasm. Their fears are well founded—EPA Budgets in Brief for Fiscal Years 2018, 2019, 2020, and 2021 show the Trump Administration suggested eliminating them.<sup>13</sup> They have gone on to receive funding, but never more than \$25 million for BWIP and just over \$3 million for Border 2020.<sup>14</sup> Contextualized, these figures are obviously insufficient—the most recent numbers available from an EPA progress report suggest the FY17

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<sup>7</sup> Of course, many EPA programs *could* address environmental harm at the Border. However, these programs are among the most directed at the region. BWIP is unique among all EPA programs in its ability to fund projects in either the United States or Mexico, allowing it a broader scope in addressing transboundary pollution problems. *See Rep. Juan Vargas Leads Bipartisan Effort to Fund the U.S.-Mexico Border Water Infrastructure Program*, UNITED STATES CONGRESSMAN JUAN VARGAS, REPRESENTING CALIFORNIA’S 51<sup>ST</sup> DISTRICT, <https://vargas.house.gov/media-center/press-releases/rep-juan-vargas-leads-bipartisan-effort-to-fund-the-us-mexico-border> (last visited March 25, 2019) [hereinafter *Vargas letter*].

<sup>8</sup> *Harris letter*, *supra* note 6 (noting BWIP’s “scope and funding levels cannot alone address all aspects of the problem.”).

<sup>9</sup> *Id.* Five additional members of Congress co-authored the letter.

<sup>10</sup> *See Bianca Bruno, San Diego Lawmakers Secure \$300M for Cross-Border Pollution Crisis*, COURTHOUSE NEWS SERVICE (Jan. 31, 2020), <https://www.courthousenews.com/san-diego-lawmakers-secure-300m-for-cross-border-pollution-crisis/>.

<sup>11</sup> *Vargas letter*, *supra* note 7. Seven representatives co-authored the letter: Vargas (D-CA), Will Hurd (R-TX), Scott Peters (D-CA), Beto O’Rourke (D-TX), Vicente Gonzalez (D-TX), Susan Davis (D-CA), and Ben Ray Luján (D-NM).

<sup>12</sup> *Id.*

<sup>13</sup> U.S. Evtl Prot. Agency FY 2018 Budget in Brief 63, 65 (2017) [hereinafter *Budget in Brief 2018*]; U.S. Evtl Prot. Agency FY 2019 Budget in Brief 79, 80 (2018) [hereinafter *Budget in Brief 2019*]; U.S. Evtl Prot. Agency FY 2020 Budget in Brief 91, 93 (2019) [hereinafter *Budget in Brief 2020*]; U.S. Evtl Prot. Agency FY 2021 Budget in Brief 109, 111 (2020) [hereinafter, *Budget in Brief 2021*].

<sup>14</sup> *Budget in Brief 2021*, *supra* note 13, at 111; *Budget in Brief 2020*, *supra* note 13, at 60.

priority list for BWIP contained 61 eligible drinking water and wastewater projects with an estimated cost of \$296 million.<sup>15</sup>

Even if the programs continue to exist, their annually-proposed elimination suggests decreasing executive interest in ongoing environmental injustice at the Border. Many definitions exist for environmental justice (EJ), and most emphasize meaningfully involving all people—regardless of race or income level—in the development, implementation, and enforcement of environmental laws, regulations, and policies.<sup>16</sup> EJ scholarship centers on exploring how minority and low-income communities are disproportionately exposed to environmental risks and suffer a disproportionate share of environmental harm.<sup>17</sup>

The Borderlands are paradigmatic EJ communities. Lacking environmental infrastructure is causing “third world” health problems to arise in the rural Southwestern United States.<sup>18</sup> In urban areas, compromised sewer lines and polluted air pose great threats to human health.<sup>19</sup> Population demographics in the region leave little to debate when considering whether issues of EJ are at stake in the Border region; it is an EJ community in regards to both race and income. The Border residents experiencing the brunt of environmental harm are predominantly Hispanic—as high as 96 percent of the population in some of the communities discussed below.<sup>20</sup> Twenty-six federally recognized Native American tribes reside in the region as well.<sup>21</sup> Finally, the Border is also home to millions of poor people: three of the ten poorest counties in the country are there, and unemployment is 250 to 300 percent higher than the national average.<sup>22</sup>

Residents at the Border are in the midst of a decades-long struggle for public health and environmental improvement. Even still, the survival of federal programs to aid in that struggle is uncertain. This paper addresses the intersection of EJ and two EPA Border programs by examining the consequences that would arise from

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<sup>15</sup> U.S. Env'tl Prot. Agency, U.S.–Mexico Border Water Infrastructure Program FY 2017 Annual Report (2018).

<sup>16</sup> A survey of how “environmental justice” is defined by government agencies, advocacy groups, scholars, and even written law reveals nuances from definition to definition. For example, EPA defines environmental justice as: “[T]he fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” Delegates at the First National People of Color Environmental Leadership Summit in 1991 proposed a more detailed, 17-principle framework for EJ. The 17 principles also explore the concepts of indigenous rights, production of toxins, hazardous chemicals and radioactive materials, and the need for EJ victims to receive compensation for environmental damage and quality health care.

<sup>17</sup> Environmental Justice: Legal Theory and Practice 15 (4<sup>th</sup> Ed.) (Barry Hill, ed., 2018).

<sup>18</sup> See, e.g., Maureen-Ann Anietie Akpan, *Tierra Y Vida: How Environmental Injustice Has Adversely Impacted the Public Health of Rural Brown Populations in South Texas*, 43 Tex. Env'tl. L.J. 321, 323 (2013).

<sup>19</sup> See discussion *infra*, Section II.A.2.

<sup>20</sup> FEDERAL RESERVE BANK OF DALLAS, LAS COLONIAS IN THE 21<sup>ST</sup> CENTURY: PROGRESS ALONG THE TEXAS-MEXICO BORDER 3 (2015).

<sup>21</sup> Vargas letter, *supra* note 7.

<sup>22</sup> U.S. ENVTL PROT. AGENCY FY 2017 BUDGET IN BRIEF 40 (2016).

eliminating or underfunding the programs in the midst of ongoing environmental devastation in the region. To do this, the paper applies a four-part framework for describing EJ issues first proposed by Professor Robert Kuehn.<sup>23</sup> Ultimately, the paper reaches the conclusion that the prognosis for environmental justice at the border will continue to worsen so long as the federal government fails to fund Border initiatives or fails to involve Border communities in the programs empowered to improve their environment.

First, the paper provides background on the environmental justice communities present at the Border. In particular, that discussion identifies how infrastructure deficits and pollution affect human health in these communities. Then, it explores the structure, history, and successes of the Border 2020 program and BWIP. Although Border wall construction is not explicitly within the scope of this paper, the Border's environment crisis exists within a larger political climate of U.S.-Mexico policy dominated by immigration enforcement priorities. Therefore, the background section concludes with a brief discussion of environmental concerns raised by Border wall construction to contextualize EPA's programs within the larger political discourse. Section III provides a brief synopsis of Kuehn's model for evaluating the environmental justice implications of a particular action. That model is applied to the proposed elimination of Border 2020 and BWIP in Section IV, ultimately leading to the conclusion that eliminating EPA's programs would severely undermine environmental justice at the Border.

## II. Diagnosis of Environmental Justice Problems at the Border

### A. Environmental Justice Communities at the U.S.-Mexico Border

#### 1. Las Colonias

In Spanish, the word "colonia" means "neighborhood," or "community."<sup>24</sup> In the Southwest United States, residents and researchers know las colonias as rural or semirural impoverished communities on the Border.<sup>25</sup> There are colonias in all four American Border states. They exhibit some demographic differences, but the colonias are all predominantly minority communities. For example, the colonias

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<sup>23</sup> See generally, Robert R. Kuehn, A Taxonomy of Environmental Justice, 30 ENVTL. L. RPTR. 10681 (2000). Kuehn used a four-part categorization of environmental justice issues that "collapses" the broad scope of environmental problems and "seeks to identify the 'justice' embodied in the concept of environmental justice." The article has been cited hundreds of times by other scholars exploring a wide array of topics, reflecting the utility of Kuehn's taxonomy to describe the multifaceted nature of justice issues. See, e.g., Priscilla A. Gonzales et al., Community-based Participatory Research and Policy Advocacy to Reduce Diesel Exposure in West Oakland, California, 101 J. Am. Pub. Health 166, 173 (2011); Carmen G. Gonzalez, Markets, Monocultures, and Malnutrition: Agricultural Trade Policy through an Environmental Justice Lens, 15 MICH. ST. J. INT'L L. 345, 351 (2006).

<sup>24</sup> Jamie Chahin, *Children of the Colonias* 3 (1997), <https://gato-docs.its.txstate.edu/jcr:94123fed-ec47-438a-b4bf-afddad9c1665/Las%20Colonias.pdf>.

<sup>25</sup> Anietie, *supra* note 18, at 322.

population in Texas is overwhelmingly Hispanic (96 percent).<sup>26</sup> In Arizona border counties, the percentage of Hispanic residents “fluctuate[s] between 25 percent and 99 percent.”<sup>27</sup>

Colonias residents are also poor—“some of the most impoverished households in the country” are in las colonias.<sup>28</sup> A 2015 study by the Federal Reserve Bank of Dallas found median household income in Texas colonias is \$28,928, compared to an average \$50,920 statewide and \$52,762 nationwide.<sup>29</sup> Socioeconomic data suggest “Texas is no anomaly,” and that “persistent pockets of poverty” exist throughout the Southwest.<sup>30</sup> Most importantly for EJ considerations, colonias residents experience much higher health risks than Americans do elsewhere.

The sources of environmental harm in las colonias are numerous. This paper explores three: (1) lack of solid waste collection, (2) inadequate water infrastructure, and (3) substandard housing conditions. In Texas, the state categorizes 350 colonias as having the “highest health risk.”<sup>31</sup> This means approximately 45,000 people there have no running water, wastewater treatment, paved roads, or solid waste disposal.<sup>32</sup> Because poor, minority residents experience exposure to those risks more frequently, las colonias have a “unique ecology” in which environmental health is tied to poverty and race; “[t]his distinctive intersection has placed rural Latinos at the bottom of the public health hierarchy in the United States.”<sup>33</sup> Laura Norman explained that this ecology is so emblematic of environmental justice concerns that it “brings to life” the link between systemic inequities and environmental health.<sup>34</sup>

Skimming headlines about life in las colonias, one would find words like “hidden” and “forgotten” appear over and over again.<sup>35</sup> But “hidden” is a deceptive

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<sup>26</sup> FEDERAL RESERVE BANK OF DALLAS, *supra* note 20, at 3.

<sup>27</sup> See Samantha Sabo et al., *Social Justice and Health in Arizona Border Communities*, in THE COLONIAS READER: ECONOMY, HOUSING, AND PUBLIC HEALTH IN U.S.-MEXICO BORDER COLONIAS, 191-92 (Angela J. Donelson and Adrian X. Esparza, eds., 2010).

<sup>28</sup> Danielle Zoe Rivera, *The Forgotten Americans: A Visual Exploration of Lower Rio Grande Valley Colonias*, 2 MICH. J. SUSTAINABILITY 119 (2014).

<sup>29</sup> FEDERAL RESERVE BANK OF DALLAS, *supra* note 20, at 2.

<sup>30</sup> For an exploration of hunger and poverty in the American Southwest, see Trymaine Lee, *Dark Valley: Life in the Shadows*, MSNBC, <http://www.msnbc.com/interactives/geography-of-poverty/sw.html> (last visited June 23, 2020). *Dark Valley* is one in a four-part series by Lee for MSNBC exploring the “geography of poverty” in the United States.

<sup>31</sup> See Emily Ramshaw, *Conditions, Health Risks, Sicken Colonias Residents*, THE TEXAS TRIBUNE (July 10, 2011, 5:00 AM) <https://www.texastribune.org/2011/07/10/conditions-health-risks-sicken-colonias-residents/>.

<sup>32</sup> *Id.*

<sup>33</sup> Akpan, *supra* note 18, at 322.

<sup>34</sup> See Laura Norman, *Urbanization and Environmental Health in Arizona Colonias*, THE COLONIAS READER: ECONOMY, HOUSING, AND PUBLIC HEALTH IN U.S.-MEXICO BORDER COLONIAS, 204 (Angela J. Donelson and Adrian X. Esparza, eds., 2010).

<sup>35</sup> See, e.g., Meredith Hoffman, *Inside Las Colonias, the Border Towns Without Electricity or Running Water*, VICE (Nov. 18, 2015, 8:00 PM), [https://www.vice.com/en\\_us/article/8gkpd4/inside-colonias-the-texas-border-towns-without-](https://www.vice.com/en_us/article/8gkpd4/inside-colonias-the-texas-border-towns-without-)

way to characterize these communities, because their struggles are well-documented, and have been for decades.<sup>36</sup> Perhaps “ignored” is the better description.

### a. Border Industrialization History in Brief

Tracing a detailed history of the Border economy cannot be done comprehensively within the scope of this paper. However, some explanation is critical, because decades-long discriminatory and disadvantageous labor practices toward minorities at the Border are the roots of environmental justice problems there. These practices, combined with the growth of the industrial economy at the Border, are the DNA of Border environmental injustice.

The operation of military outposts in the distant reaches of the American Southwest “fueled” white migration to the region as early as World War I.<sup>37</sup> That migration “fanned the flames” of racial and ethnic conflict at the Border.<sup>38</sup> White residents denied access to education and well-paying jobs to Mexican Americans already living there.<sup>39</sup> This discrimination “deepened the poverty and deprivation that is found in many colonias today.”<sup>40</sup>

During World War II, a labor shortage on American farms catalyzed the Bracero Program.<sup>41</sup> Between 1942 and 1964, 4.6 million Bracero Program contracts brought Mexican guest workers to the United States for short-term agricultural projects.<sup>42</sup> The program’s end left a “vast reserve” of unemployed Mexican workers, and rising joblessness caused social unrest.<sup>43</sup> The Border Industrialization Program (BIP) followed.<sup>44</sup> BIP addressed some of the social unrest associated with unemployment, but “it also encouraged growth in U.S.–Mexico border towns, much of which [were] substandard compared to current development codes.”<sup>45</sup>

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electricity-or-running-water (referring to *colonias* as “hidden slums”); John Quinones, Ben Newman & Roxanna Sherwood, *Hidden America: ‘Forgotten Ones’ Struggle to Survive in Texas’ Barren ‘Colonias*, ABC NEWS (Apr. 25, 2012, 3:21 PM), <https://abcnews.go.com/US/hidden-america-forgotten-struggle-survive-texas-barren-colonias/story?id=16213828>; Chloe Jones, *Untold Arizona: Colonia of Rillito ‘A Forgotten Town’*, KJZZ (April 3, 2019, 8:46 AM) <https://theshow.kjzz.org/content/762353/untold-arizona-colonia-rillito-forgotten-town>.

<sup>36</sup> See, e.g., Rivera, *supra* note 28, at 121 (explaining that a “highly influential story” on the colonias appeared in *The New York Times* 30 years ago).

<sup>37</sup> Norman, *supra* note 34, at 206.

<sup>38</sup> *Id.*

<sup>39</sup> *Id.*

<sup>40</sup> *Id.*

<sup>41</sup> *Mexican Labor and World War II: The Bracero Program*, DIGITAL PUBLIC LIBRARY OF AMERICA, <https://dp.la/primary-source-sets/mexican-labor-and-world-war-ii-the-bracero-program> (last visited May 9, 2019).

<sup>42</sup> *The Bracero Program*, UCLA LABOR CENTER, <https://www.labor.ucla.edu/what-we-do/research-tools/the-bracero-program/> (last visited March 27, 2019).

<sup>43</sup> Norman, *supra* note 34, at 205.

<sup>44</sup> *Id.*

<sup>45</sup> *Id.*



Labor trends at the Border ultimately set the stage for the Maquiladora<sup>46</sup> economy and the North American Free Trade Agreement (NAFTA).<sup>47</sup> Some researchers suggest the Maquiladora economy has been “...the most transformative force in the U.S.–Mexico border region.”<sup>48</sup> At Maquiladoras, American-owned companies employ millions of Mexican laborers at a minimum wage a fraction of its cost in the United States.<sup>49</sup> NAFTA, enacted in 1994, further bolstered growth and trade.<sup>50</sup> NAFTA eliminated taxes on goods shipped amongst the U.S., Mexico, and Canada, which catalyzed cross-border manufacturing and growth in Border towns.<sup>51</sup>

This review of economic growth at the Border, while brief, illuminates notable points about roots of the Border’s environmental problems. First, these labor practices caused “undeniable” disruption in this physical environment, polluting the air and water.<sup>52</sup> Second, the region has grown quickly and continues to grow in ways that stress the already limited infrastructure there. Third, those migrating to the region to work and live are often Hispanic laborers and their families. They frequently receive meager pay for the work they do, and their living conditions reflect their limited ability to seek adequate housing. These trends are intertwined with the Border’s environmental health stressors.

#### **b. Las Colonias Emerge**

The labor programs and practices mentioned above spurred an influx of industrial workers in the American Southwest, leading to a lack of affordable housing.<sup>53</sup> That scarcity forced many migrant workers to purchase rural lots made available to them through developers’ contract-for-deed arrangements.<sup>54</sup> Outside the land use policies of incorporated counties, “these homesteads expanded into [the] rural subdivisions” that became las colonias.<sup>55</sup> But lest the development of las colonias be seen as merely a consequence of uncontrolled need for cheap housing, scholars explain that these housing sales have their roots in developers’ desire to capitalize on migrant workers’ vulnerability and lack of bargaining power. Researchers at the University of Michigan note that in response to the need for affordable housing:

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<sup>46</sup> Maquiladora loosely translates to “factory.”

<sup>47</sup> Norman, *supra* note 34, at 206.

<sup>48</sup> *Id.*

<sup>49</sup> *Id.*

<sup>50</sup> *Id.*

<sup>51</sup> *Id.* at 206-07.

<sup>52</sup> *Id.* at 207.

<sup>53</sup> UNITED STATES GEOLOGICAL SURVEY, CHIPS: MONITORING COLONIAS ALONG THE UNITED STATES-MEXICO BORDER IN TEXAS (2008), <https://pubs.usgs.gov/fs/2008/3079/pdf/fs2008-3079.pdf>.

<sup>54</sup> *Id.*

<sup>55</sup> *Id.*

[u]nscrupulous developers, capitalizing on [a severe shortage of affordable housing], illegally subdivided agriculturally unsuitable lands across unincorporated territories near major border cities. This allowed them to sell these lots to unsuspecting migrant farmworkers, who believed they were illegally purchasing land. While residents were promised utilities, few developers kept this promise. Outside the auspices of local government, this illegal activity continued unabated for nearly three decades.<sup>56</sup>

Thus, the unincorporated nature of las colonias is significant. Developers' behavior has allowed local and state governments to avoid providing basic infrastructure in these communities. For example, Arizona law allows up to five lot "splits" before subdivision infrastructure standards apply.<sup>57</sup> As landowners divide their parcels into smaller and smaller groups of five, "Wildcat subdivisions" sprout in the Arizona desert.<sup>58</sup> They are "full-blown" subdivisions in scale and population, but they lack the infrastructure typical of incorporated subdivisions.<sup>59</sup> Although the colonias have varying infrastructure and utility needs,<sup>60</sup> common deficits include waste disposal or recycling, clean drinking water, wastewater treatment, and paved roads.<sup>61</sup>

### c. Las Colonias Lack Adequate Solid Waste Collection Services

Without proper waste collection services, colonias residents face lose-lose options for what to do with accumulated waste in their neighborhoods. They can either burn their waste, or let it accumulate around their homes.<sup>62</sup> Accumulated waste hinders outdoor physical activity, which contributes to high rates of obesity

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<sup>56</sup> Rivera, *supra* note 28, at 120-21.

<sup>57</sup> Norman, *supra* note 34, at 207-08.

<sup>58</sup> *Id.* at 208.

<sup>59</sup> *Id.*

<sup>60</sup> UNITED STATES GEOLOGICAL SURVEY, *supra* note 53, at 1 (describing the criteria that separate colonias in the USGS three-category health risk scheme. Examples of criteria include the presence of potable drinking water, wastewater treatment, paved roads, roads passable in all weather conditions, and trash disposal).

<sup>61</sup> *Id.*

<sup>62</sup> Akpan, *supra* note 18, at 325.

in las colonias.<sup>63</sup> The other option—burning trash—is extremely hazardous.<sup>64</sup> The toxins released during burning contribute to a “nagging asthma and bronchitis” problem; at the Border, rates for the diseases “far exceed” state averages.<sup>65</sup> While the lack of solid waste procedures is troubling, lack of water infrastructure is even more so.

#### d. Access to Potable Drinking Water and Sewage Systems

Lack of potable drinking water and wastewater treatment facilities are the foremost environmental justice concerns at the Border. The Rural Community Assistance Partnership estimates approximately 30 percent of colonias residents don’t have access to safe drinking water. But percentage rates alone are misleading—they amount to tens of thousands of residents lacking safe water.<sup>66</sup> Within the Texas border region alone, nearly 90,000 people live in homes without running water.<sup>67</sup>

Investigative journalism from local outlets is perhaps the best source for illuminating the human toll of the decades-long struggle for clean water in the wake of the Border’s period of rapid industrialization.<sup>68</sup> Unsafe drinking water conditions lead to health problems generally seen in “third world” countries.<sup>69</sup> Even in homes with running water, the quality may be so poor that residents “cannot know what diseases or poisons it might carry.”<sup>70</sup> Contaminated water may contain unsafe

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<sup>63</sup> *Id.*; see also *School of Public Health Leading Multi-State Initiative to Reducing Childhood Obesity Along the United States-Mexico Border*, VITAL RECORD: NEWS FROM TEXAS A&M UNIVERSITY HEALTH SCIENCE CENTER, <https://vitalrecord.tamhsc.edu/school-of-public-health-leading-multi-state-initiative-to-reduce-childhood-obesity-along-the-u-s-mexico-border/> (last visited March 27, 2019). Professor Joe Sharkey at Texas A & M University explains: “The burden of obesity disproportionately affects marginalized populations, such as children of Mexican heritage who reside in impoverished communities along the U.S.-Mexico border.” His research supports the suggestion that lacking physical activity opportunities in part cause obesity along the Border. He also cites, among other causes, lacking access to affordable and healthy food, and parents’ motivation to keep kids inside where they might be safer from gang activities in their neighborhoods.

<sup>64</sup> See, e.g., *Backyard Burning*, U.S. Evtl Prot. Agency, <https://archive.epa.gov/epawaste/nonhaz/municipal/web/html/index-3.html> (last visited March 30, 2019).

<sup>65</sup> Emily Ramshaw, *Conditions, Health Risks Sicken Colonias Residents*, THE TEXAS TRIBUNE (July 10, 2011, 5:00 P.M.), <https://www.texastribune.org/2011/07/10/conditions-health-risks-sicken-colonias-residents/>.

<sup>66</sup> Neena Satija & Alexa Ura, *Undrinkable: Many along Texas Border still without clean, safe water*, THE TEXAS TRIBUNE (Mar. 8, 2015), [https://apps.texastribune.org/undrinkable/?\\_ga=2.64799527.908786075.1553983175-1752259993.1553983175](https://apps.texastribune.org/undrinkable/?_ga=2.64799527.908786075.1553983175-1752259993.1553983175).

<sup>67</sup> *Id.*

<sup>68</sup> For instance, I gleaned much of the information included in this section by reading *The Texas Tribune*, the work of a non-profit media company based in Austin. Its collected “Undrinkable” articles explore water problems in the region, and they were invaluable in researching this piece. Undrinkable is available at: <https://www.texastribune.org/series/undrinkable/>

<sup>69</sup> Satija and Ura, *supra* note 66.

<sup>70</sup> *Id.*

levels of arsenic and bacteria, including *E. coli*.<sup>71</sup> Without in-home running water, residents must purchase bottled water or obtain water from wells.<sup>72</sup> It is common for well water to be compromised by harmful mineral concentrations, radioactive compounds, and toxic industrial byproducts.<sup>73</sup> Residents that consume contaminated water experience higher rates of skin rashes and gastrointestinal problems (e.g., stomach cramps and vomiting).<sup>74</sup> Yet drinking water is not the sole source of problematic water contamination in the rural Southwest.

Exposure to untreated wastewater also threatens health in *las colonias*. In the Natural Resource Defense Council's (NRDC) "On Earth" series, Tim Vanderpool noted "the stench of sewage" reminds Border residents that federal agencies have failed "to maintain basic services that safeguard the environment and human health."<sup>75</sup> Problems with untreated wastewater are particularly international in nature. Many bodies of water at the Border flow from Mexico into the United States, or vice versa—some even weave in and out of the two nations.<sup>76</sup> Vulnerabilities in the lines carrying raw sewage from to and from wastewater treatment plants have revealed themselves to be particularly catastrophic in recent years.<sup>77</sup> One such line, the International Outfall Interceptor (IOI), "often" bursts during Arizona's summer monsoon rains.<sup>78</sup> This discharges raw sewage into the Santa Cruz River.<sup>79</sup> When the IOI burst in 2017, the raw sewage leak caused bacterial concentrations in the river to rise beyond measure.<sup>80</sup>

Raw sewage problems also necessarily arise from the fact that Border communities do not have enough wastewater treatment facilities to accommodate their populations. Sewage systems are "few and far between"; *colonias* are even less likely to have a sewer system than access to potable drinking water.<sup>81</sup> Exposure to raw sewage causes outbreaks of infectious diseases including hepatitis, tuberculosis, typhoid, and dysentery.<sup>82</sup> By the 1990s, scientific data on *las colonias* showed high levels of hepatitis A in both adults and children.<sup>83</sup> If Border counties were the 51<sup>st</sup> state, it would rank third in hepatitis deaths, and second in incidence

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<sup>71</sup> *Id.*

<sup>72</sup> *Id.*

<sup>73</sup> *Id.*

<sup>74</sup> *Id.*

<sup>75</sup> Tim Vanderpool, *The Festering Sanitation Crisis at Our Border*, NATURAL RESOURCES DEFENSE COUNCIL (Dec. 3, 2018), <https://www.nrdc.org/onearth/festering-sanitation-crisis-our-border>.

<sup>76</sup> *Id.* Vanderpool uses the example of the Santa Cruz river, which he describes as a "border-hopping nomad."

<sup>77</sup> *Id.*

<sup>78</sup> *Id.*

<sup>79</sup> *Id.*

<sup>80</sup> *Id.*

<sup>81</sup> Akpan, *supra* note 18, at 326; DIANNA C. BETTS & DANIEL J. SLOTTJE, CRISIS ON THE RIO GRANDE: POVERTY, UNEMPLOYMENT, AND ECONOMIC DEVELOPMENT ON THE TEXAS-MEXICO BORDER 69 (1994).

<sup>82</sup> Akpan, *supra* note 18, at 326--27; BETTS & SLOTTJE, *supra* note 81, at 77.

<sup>83</sup> Hoffman, *supra* note 35 (citing an anecdote from Dr. Juan Manuel de la Rosa, who explained his research in the 1990s found elevated levels of hepatitis A in *colonias* children).

of tuberculosis.<sup>84</sup> Some physicians even observe leprosy—a near artifact of a disease—in the colonias.<sup>85</sup> Incidence of that disease are “almost unheard of” in most of the United States.<sup>86</sup> The weight of public health research in this region suggests researchers are unified in the belief that infectious disease rates this severe are not seen elsewhere in the United States.

#### e. Unsafe Housing Conditions

The housing that residents in las colonias can afford is typically rough—even dangerous.<sup>87</sup> A passage from the *Texas Tribune* illustrates the dilapidated built environment that is typical in las colonias.<sup>88</sup> It tells the story of Laura, a 23-year-old woman abandoned by her husband, living in Texas with her five children younger than 10.<sup>89</sup> Laura “pays \$187 a month to live in a dirt-floored shack that is part broken-down motor home, part splintered plywood shed.”<sup>90</sup> Laura’s home has no laundry space, so she scrubs children’s diapers and school uniforms in her kitchen sink. The family’s bathroom is “a makeshift outhouse, only yards from the large trash pile her children scale like a mountain.”<sup>91</sup> A review of photographs substantiates the *Texas Tribune*’s claim that Laura’s home is typical of colonias housing.<sup>92</sup> Many homes not only lack very basic amenities, but are also structurally unsound.

Homes often lack floors, windows, doors, or walls.<sup>93</sup> Air conditioning is rare so residents must leave their doors and windows open for relief from the region’s extreme heat.<sup>94</sup> Opening windows and doorframes to the Border desert exposes residents to mosquito-borne illnesses including Dengue fever, and tick-borne illnesses like Lyme disease.<sup>95</sup> Agricultural dust from neighboring fields

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<sup>84</sup> See *The Environmental, Economic and Health Status of Water Resources in the U.S.-Mexico Border Region 2*, GOOD NEIGHBOR ENVTL. BD. (DEC. 2012), <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100JREQ.PDF?Dockey=P100JREQ.PDF>.

<sup>85</sup> Ramshaw, *supra* note 31 (including the observation of Dr. Brian Smith of “unusual” epidemiological data including “the lingering presence of Hansen’s disease, or leprosy . . .”).

<sup>86</sup> *Id.*

<sup>87</sup> Akpan, *supra* note 18, at 322-23 (explaining colonias homes often “resemble shantytowns in various stages of development, some with no foundations, no floors, no windows, doors or walls that are dangerous or inadequately operated.”).

<sup>88</sup> Ramshaw, *supra* note 31.

<sup>89</sup> *Id.*

<sup>90</sup> *Id.*

<sup>91</sup> *Id.*

<sup>92</sup> In 2017, ABC’s *Nightline* aired a short documentary segment on children’s lives in *las colonias*. The clip, just short of six minutes, contains video footage of typical *colonias* homes. Ben Newman, *Hidden America: Children of Las Colonias*, Vimeo, <https://vimeopro.com/bennewman/bennewman/video/201196936> (last visited June 23, 2020).

<sup>93</sup> Akpan, *supra* note 18, at 323.

<sup>94</sup> *Id.* at 324.

<sup>95</sup> *Id.* at 323; see also Ramshaw, *supra* note 30 (“There are cases of Dengue fever and Lyme disease carried by mosquitoes and ticks, the result of flooding and non-air-conditioned homes where windows and doors stand open.”).

wafting through windows creates additional risk for respiratory illnesses like asthma and bronchitis.<sup>96</sup> Problems in housing conditions underscore the point that rural residents' health is threatened by both the environment at the Border, whether it be natural or built.

## 2. Transboundary Urban Communities

The Border is also home to many “sister cities” near one another on opposite sides of the Border. Well-known sister city pairings include Nogales and Tucson, Tijuana and San Diego, and Ciudad Juarez and El Paso (Las Cruces, New Mexico is also in close proximity to Ciudad Juarez).<sup>97</sup> Air pollution is widespread in the Border region, but especially so in these “major cross-border urban centers.”<sup>98</sup> The Port of San Ysidro, located near San Diego, is the busiest land port in the Western Hemisphere—upwards of 50,000 vehicles travel Northbound through the Port *each day*.<sup>99</sup> Idling vehicles pollute the air near Ports of Entry as they await their turns for inspection, reflected by monitors near the Ports showing highly elevated levels of air pollutants.<sup>100</sup> Exposure to air pollutants is linked to asthma, allergies, and dermatitis.<sup>101</sup> Health problems caused by air pollution are more tightly linked to environmental justice concerns in light of a recent study by Tessum et al.<sup>102</sup> The study is the first to directly establish that black and Hispanic minorities bear a disproportionate burden from air pollution caused by non-Hispanic whites—a finding the authors note many find intuitive, but nonetheless had not yet been statistically established so concretely.<sup>103</sup>

Environmental scholarship focused on urban components of the Border focus less on the struggle for potable drinking water than sources discussing the unincorporated communities in *las colonias*.<sup>104</sup> Perhaps this is because the cities are large enough to invoke the management resources of municipalities and states. Even still, water problems are not unique to the rural Southwest. Urban centers

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<sup>96</sup> *Id.*

<sup>97</sup> Norman, *supra* note 34, at 207.

<sup>98</sup> *Id.*

<sup>99</sup> Eileen Mignoni, *Air pollution plagues U.S.-Mexico border crossing*, YALE CLIMATE CONNECTIONS (May 25, 2017), <https://www.yaleclimateconnections.org/2017/05/air-pollution-plagues-u-s-mexico-border-crossing/>.

<sup>100</sup> *Id.* See also Norman, *supra* note 34, at 207 (noting that air pollution in these urban centers is the result of urbanization and transborder trucking, “the lifeblood of the maquiladora economy.”)

<sup>101</sup> Dorota Jenerowitz et al., *Environmental factors and allergic diseases*, 19 ANNALS OF AG. & ENVTL. MED. 475, 475 (2012) (identifying knowledge of the link between these diseases and environmental factors such as gaseous materials and particulate matter from motor vehicles).

<sup>102</sup> Christopher W. Tessum et al., *Inequity in consumption of goods and services adds to racial-ethnic disparities in air pollution exposure*, 116 PNAS 6001 (2019), <https://www.pnas.org/content/pnas/116/13/6001.full.pdf>.

<sup>103</sup> *Id.* The paper also outlines a “pollution inequity metric,” that is translatable to many pollution contexts and provides a “simple and intuitive way of expressing disparity between the pollution that people cause and the pollution to which they are exposed.” *Id.*

<sup>104</sup> Discussions of potable drinking water problems are in most articles on *las colonias*. But, this is not to say urban centers do not experience problems with water quality. The public health crisis in Flint, Michigan is perhaps most emblematic of the fact that inadequate drinking water infrastructure is not a uniquely rural problem.

along the Border struggle with polluted water and raw sewage exposure from transnational waterways.<sup>105</sup> Between January 2017 and February 2018, the International Boundary Water Commission (IWBC) reported 29 sewage spills from Mexico into the United States.<sup>106</sup> Communities surrounding San Diego have struggled with beach closures due to sewage from Tijuana washing ashore.<sup>107</sup> Sewage problems are exacerbated when industrial waste co-mingles with sewage.<sup>108</sup> For instance, metals, chemical solvents, and DDT are found in sewage from Tijuana.<sup>109</sup>

The public health toll of urban sewage contamination is apparent to those in the sister cities. Serge Dedina, the “surf-boarding mayor” of Imperial Beach, California, told the NRDC: “. . . when I paddled out into the water, I could smell the sewage. . . those types of discharges along the beach have made me really sick. They have made my kids really sick, made our lifeguards sick and our city manager sick. It’s a significant health crisis . . . .”<sup>110</sup> Border Patrol agents in Tijuana have suffered chemical burns “from wading through the muck.”<sup>111</sup> These conditions have been a driving force behind San Diego’s congressional representatives’ passionate advocacy for the BWIP.<sup>112</sup>

## **B. EPA’s Tools for Addressing Border Environmental Justice**

As noted above, the threatened programs examined by this paper are the Border 2020 program and BWIP, both administered by the EPA. The following background discussion draws heavily on EPA resources describing the programs, as well as proposed “EPA Budget[s] in Brief” to explain their funding circumstances.

### **1. Border 2020**

Border 2020 is a collaborative grant program run by EPA and SEMARNAT (Mexico’s Office for the Secretary of the Environmental and Natural Resources).<sup>113</sup>

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<sup>105</sup> Vanderpool, *supra* note 75.

<sup>106</sup> Darien Key & Faye Winkler, *Mexican Sewage in American Waters: Who is Responsible for Fixing the Sewage Crisis*, AMERICAN BAR ASSOCIATION (Nov. 9, 2018), [https://www.americanbar.org/groups/environment\\_energy\\_resources/publications/wr/20181109-mexican-sewage-in-american-waters/](https://www.americanbar.org/groups/environment_energy_resources/publications/wr/20181109-mexican-sewage-in-american-waters/).

<sup>107</sup> Vanderpool, *supra* note 75.

<sup>108</sup> *Id.*

<sup>109</sup> *Id.*

<sup>110</sup> *Id.* Mayor Dedina’s comments to NRDC also suggest traditional environmental problems implicated by sewage contamination: “It’s a significant health crisis, and obviously it has a significant impact on all of these sensitive wildlife and ecosystems on the border.”

<sup>111</sup> *Id.*

<sup>112</sup> *See, e.g.*, Bruno, *supra* note 10.

<sup>113</sup> *See Organization*, U.S. ENVTL PROT. AGENCY, BORDER 2020, <https://www.epa.gov/border2020/organization> (last visited April 1, 2019).

The program is a “binational effort to protect human health and the environment in the U.S.–Mexico border region.”<sup>114</sup> It descends from Border 2012 in a line of environmental programs implemented under the La Paz agreement.<sup>115</sup> Border 2020 funds grants in service of five goals: (1) Reduce Air Pollution, (2) Improve Access to Clean and Safe Water, (3) Promote Materials Management, Waste Management, and Clean Sites, (4) Enhance Joint Preparedness for Environmental Response, and (5) Enhance Compliance Assurance and Environmental Stewardship.<sup>116</sup>

Each goal is further sub-divided into “objectives.” For instance, one objective under goal (5) is to “strengthen effective information sharing between U.S. and Mexican agencies regarding the movement of hazardous waste across the border and its ultimate treatment or disposal.”<sup>117</sup> Border 2020 is co-lead by two national directors, and is largely divided into four working groups: two under the umbrella of EPA Region 6 (South Central) and two others under the umbrella of EPA Region 9 (Pacific Southwest).<sup>118</sup> Each working group is further sub-divided into taskforces and committees.<sup>119</sup>

Border 2020 is an intriguing program, because its goals appear broad and diverse—but at the same time, those goals seem precise in light of the particular environmental justice concerns raised above. Despite this balance, Border 2020 is a difficult program to evaluate because it is funded by a relatively small amount of money compared to other EPA programs that take up a more significant portion of its overall budget. For example, in Fiscal Year 2018, Border 2020 accounted for only \$2.645 million of EPA’s \$5.655 billion budget.<sup>120</sup> In addition, it may be impossible to say with certainty which projects would be in jeopardy if Border 2020 was in jeopardy as well. To inform whether Border 2020’s small dollars have large impacts, the following section addresses three programs from Border 2020’s most recent “Highlights” report.<sup>121</sup> Although these projects already received funding, they call to mind the types of scientists, innovators, and community groups who might be forced to turn elsewhere in the hopes of funding if the EPA extinguishes the program.

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<sup>114</sup> Press Release, U.S. ENVTL PROT. AGENCY, U.S. EPA announces \$327,000 for environmental projects along the California/Baja California border (April 24, 2018), <https://www.epa.gov/newsreleases/us-epa-awards-280000-advance-environmental-projects-californiabaja-california-border-0>.

<sup>115</sup> See *What is Border 2020*, U.S. ENVTL PROT. AGENCY, BORDER 2020, <https://www.epa.gov/border2020/what-border-2020> (last visited April 1, 2019).

<sup>116</sup> See *Goals and Objectives*, U.S. ENVTL PROT. AGENCY, BORDER 2020, <https://www.epa.gov/border2020/goals-and-objectives> (last visited April 5, 2020).

<sup>117</sup> *Id.*

<sup>118</sup> See, e.g., *Region 6 Workgroups*, U.S. ENVTL PROT. AGENCY, BORDER 2020, <https://www.epa.gov/border2020/goals-and-objectives> (last visited April 1, 2019).

<sup>119</sup> *Id.*

<sup>120</sup> Budget in Brief 2020, *supra* note 13, at 60.

<sup>121</sup> U.S. ENVTL PROT. AGENCY & SECRETARIA DE MEDIO AMBIENTE Y RECURSOS NATURALES (SEMARNAT), BORDER 2020: UNITED STATES-MEXICO ENVIRONMENTAL PROGRAM, HIGHLIGHTS REPORT: AUTUMN 2018 8, [https://www.epa.gov/sites/production/files/2018-11/documents/border2020\\_report2018\\_eng\\_hq.pdf](https://www.epa.gov/sites/production/files/2018-11/documents/border2020_report2018_eng_hq.pdf) (last visited June 23, 2020) [hereinafter Autumn 2018 Progress Report].



### **a. Imperial Valley Child Asthma Program (IVCAP)**

Due to environmental hazards such as cross-border air pollution, respiratory illness rates among children in Imperial Valley, California are high.<sup>122</sup> The Valley experiences some of the highest rates of asthma-related emergency room visits in California.<sup>123</sup> During Border 2020's two-year partnership with the IVCAP, the program enrolled 90 additional asthmatics and performed in-home assessments to identify asthma triggers.<sup>124</sup> Community health workers known as Promotoras conducted the assessments.<sup>125</sup> IVCAP tailored interventions to unique triggers in each home, and eight percent of the new participants reduced, avoided, or eliminated two or more triggers as a result of the assessments.<sup>126</sup> Although they were not full-time participants, IVCAP reached an additional 2,000 individuals through outreach and education initiatives.<sup>127</sup>

### **b. E-Waste Recycling Program**

In 2016, Border 2020 provided two grants for e-waste collection programs to address the spike in solid waste resulting from disposal of obsolete personal electronics.<sup>128</sup> Electronic waste is particularly difficult to safely dispose of or recycle because it contains toxic materials like lead, mercury, cadmium, and arsenic.<sup>129</sup> At the Border, electronic waste accumulates in neighborhoods without solid waste collection, or it is improperly disposed of in landfills.<sup>130</sup> The Border 2020 grant funded ten permanent e-waste collection centers in Texas and Coahuila.<sup>131</sup> In just one year, the centers collected 62.44 tons and (based on a conservative estimate) served over 80,000 Border residents.<sup>132</sup>

### **c. Grants for Children's Environmental Health**

In 2018, Border 2020 granted more than \$214,000 dollars to five projects designed to address children's environmental health in Texas, New Mexico, and

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<sup>122</sup> *Id.*

<sup>123</sup> *Id.*

<sup>124</sup> *Id.*

<sup>125</sup> *Id.*; for additional information about interventions utilizing Promotoras, *See School of Public Health Leading State Initiative to Reduce Childhood Obesity Along the U.S.-Mexico Border*, TEXAS A&M UNIVERSITY HEALTH SCIENCES CENTER (April 8, 2015), <https://vitalrecord.tamhsc.edu/school-of-public-health-leading-multi-state-initiative-to-reduce-childhood-obesity-along-the-u-s-mexico-border/>.

<sup>126</sup> Autumn 2018 Progress Report, *supra* note 121, at 8.

<sup>127</sup> *Id.*

<sup>128</sup> *Id.* at 16.

<sup>129</sup> *Id.*

<sup>130</sup> *Id.*

<sup>131</sup> *Id.*

<sup>132</sup> *Id.* at 8.

Arizona.<sup>133</sup> Among the organizations receiving grant funding were Texas A&M University's School of Public Health, the Southwest Center for Pediatric Environmental Health, and the Mariposa Community Health Center.<sup>134</sup> Their funding went towards programs addressing environmental health problems related to lead-based paint, indoor air quality, and pest management.<sup>135</sup> Project funding provided by Border 2020 is training approximately 350 community health workers, childcare workers, and medical providers on how to better address these environmental health stressors. Funding is supporting community outreach to an estimated 2,000 community members.<sup>136</sup>

## 2. BWIP

Since 1995, BWIP has awarded grants for drinking water and wastewater infrastructure needs in the Border region.<sup>137</sup> Between 2003 and 2017, BWIP funded 128 projects, 108 of which had reached completion by publication of BWIP's 2017 annual report (its most recent).<sup>138</sup>

BWIP's success stories are striking. The program is responsible for first-time sewer connections in 673,000 households and first-time connections to safe drinking in over 70,000 households.<sup>139</sup> The program built or expanded twenty-one water treatment plans (seventeen in the United States, four in Mexico), and fifty-nine wastewater treatment plans (twenty-six in the United States, thirty-three in Mexico).<sup>140</sup> BWIP's funding of newly-constructed wastewater treatment facilities expanded raw wastewater treatment capacity at the Border by 280 million gallons per day.<sup>141</sup> Perhaps unsurprisingly, demand for BWIP funding exceeds its grant capacity. In Fiscal Year 2017, EPA's priority list for BWIP contained 61 eligible drinking water projects that would cost \$296 million to construct.<sup>142</sup> That year, the EPA's Budget in Brief proposed \$5 million in funding for the program.<sup>143</sup>

BWIP is a larger program than Border 2020. During the Trump Administration, BWIP funding has fluctuated between \$10 million and \$25 million.<sup>144</sup> The EPA's 2021 Budget in Brief asked to have the program eliminated,

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<sup>133</sup> *Id.* at 29.

<sup>134</sup> *Id.*

<sup>135</sup> *Id.*

<sup>136</sup> *Id.*

<sup>137</sup> U.S. Env'tl Prot. Agency, U.S.–MEXICO BORDER WATER INFRASTRUCTURE PROGRAM ANNUAL REPORT 2013 1 (2014). For a complete catalogue of BWIP-funded projects, see *Infrastructure Projects*, NORTH AMERICAN DEVELOPMENT BANK, <https://www.nadb.org/our-projects/infrastructure-projects> (last visited August 16, 2020).

<sup>138</sup> U.S. Env'tl Prot. Agency, U.S.–MEXICO BORDER WATER INFRASTRUCTURE PROGRAM ANNUAL REPORT FY 2017 1 (2018) [hereinafter *BWIP Annual Report FY 2017*].

<sup>139</sup> *U.S.-Mexico Border Water Infrastructure Grant Program*, U.S. ENVTL PROT. AGENCY, <https://www.epa.gov/small-and-rural-wastewater-systems/us-mexico-border-water-infrastructure-grant-program> (last visited August 16, 2020).

<sup>140</sup> *Id.*

<sup>141</sup> BWIP Annual Report FY 2017, *supra* note 138, at 1.

<sup>142</sup> *Id.*

<sup>143</sup> U.S. ENVTL PROT. AGENCY FY 2017 BUDGET IN BRIEF 84 (2016).

<sup>144</sup> Budget in Brief 2020, *supra* note 13, at 60; Budget in Brief 2021, *supra* note 13, at 109.

claiming State Revolving Funds (SRFs) could continue to fund water system improvements along the Border.<sup>145</sup> But the promise of SRFs is misleading as it relates to BWIP investments. BWIP project funding can be spent flexibly on projects in either the United States or Mexico. Given the trans-border nature of water problems, even project funding entirely devoted to Mexican construction can indirectly impact residents in the United States.<sup>146</sup> For instance, BWIP's funding for wastewater treatment plans has primarily resulted in construction on the Mexican side of the Border. However, the Border Environment Cooperation Commission (BECC) estimates that 1.7 million U.S. residents benefited *directly* from new plans, while an additional 2.4 million *indirectly* benefited from the expanded capacity to remove 353 million gallons of raw sewage per day from trans-border watersheds.<sup>147</sup>

### C. Environmental Divestment in an Era of Wall Building

“Build that wall!” was perhaps the best-known refrain of President Trump's 2016 presidential campaign.<sup>148</sup> “That wall” is a reference to Trump's promise to construct a “big, beautiful wall” along the Border.<sup>149</sup> His justifications for the wall have changed over time.<sup>150</sup> Trump's belief that the country should keep Latino immigrants from entering the United States forms the through line connecting his various justifications.<sup>151</sup>

The federal government shut down twice over Border wall funding debates, and one shutdown was the longest in American history.<sup>152</sup> In January 2019, the government reopened without funds for construction.<sup>153</sup> In an effort to skirt Congressional permission, Trump invoked the executive powers of the National

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<sup>145</sup> Budget in Brief 2021, *supra* note 13, at 109.

<sup>146</sup> See *supra* notes 81-93 and accompanying text.

<sup>147</sup> BORDER ENVIRONMENT COOPERATION COMMISSION, *supra* note 138, at 2.

<sup>148</sup> See, e.g., Toluse Olorunnipa et al., ‘Finish that wall’: Trump seeks to turn his failure to build the wall into campaign rallying cry, WASH. POST (Feb. 16, 2019), [https://www.washingtonpost.com/politics/finish-that-wall-trump-seeks-to-turn-his-failure-to-build-the-wall-into-campaign-rallying-cry/2019/02/16/3fbaebd4-3138-11e9-ac6c-14eea99d5e24\\_story.html](https://www.washingtonpost.com/politics/finish-that-wall-trump-seeks-to-turn-his-failure-to-build-the-wall-into-campaign-rallying-cry/2019/02/16/3fbaebd4-3138-11e9-ac6c-14eea99d5e24_story.html) (recounting a rally in El Paso when supporters chanted the phrase).

<sup>149</sup> See, e.g., Rebecca Morin, *A quick history of Trump's evolving justifications for a border wall*, POLITICO (Jan. 8, 2019, 2:56 PM), <https://www.politico.com/story/2019/01/08/trumps-evolving-reasons-border-wall-1088046>.

<sup>150</sup> *Id.* (“Trump has been less consistent in explaining why the U.S. needs such a wall on the U.S.-Mexico border.”).

<sup>151</sup> Steve Holland & Richard Cowan, *Backing down, Trump agrees to end shutdown without border wall money*, REUTERS (Jan. 25, 2019), <https://www.reuters.com/article/us-usa-shutdown/backing-down-trump-agrees-to-end-shutdown-without-border-wall-money-idUSKCN1PJ126>.

<sup>152</sup> *Id.*

<sup>153</sup> *Id.*

Emergencies Act, which allows him to order emergency actions outlined throughout the U.S. Code once he declares a “national emergency.”<sup>154</sup>

Many communities discussed in this paper would obviously be home to portions of a Border wall. But a wall cannot be built without disruption to the physical environment.<sup>155</sup> Endangered species, animal migratory patterns, national parks, and international waterways all lie in the path of a potential Border wall.<sup>156</sup> No prediction is needed to determine whether a wall could harm the Border environment; 654 miles of barriers already exist there.<sup>157</sup> Among other problems, border barrier construction catalyzes “harmful ecological phenomena that lead to fragmentation, flooding, sedimentation, and damage to cultural and natural resources.”<sup>158</sup> Border infrastructure in densely-populated areas pushed unauthorized migration into rural borderlands, which further stressed their “fragile ecosystems.”<sup>159</sup> As migrants and immigration enforcement officers traversed the rural border, ecological problems, pollution, vegetation destruction, and wildlife disturbance followed.<sup>160</sup>

The prospect of environmental harm is one justification raised by groups seeking to stall Trump’s plans for wall construction. By May 2019, five lawsuits were pending to challenge Trump’s national emergency declaration.<sup>161</sup> On April 2, 2020, Judge Trevor McFadden of the District of Columbia granted in part and

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<sup>154</sup> See 50 U.S.C. §§ 1601 (2018) *et seq.* See also, e.g., Charlie Savage, *How Trump Might Claim Emergency to Get Wall*, N.Y. TIMES, Jan. 7, 2019, at A16. In this piece, Brennan Center scholar Elizabeth Goitein pointed to two laws linked to an emergency declaration that could allow the President to direct funds to the wall. The first allows the Secretary of the Army to halt civil works projects during a Presidentially-declared emergency and divert funds and troops to “military construction and civil defense projects that are essential to the national defense.” *Id.* The second gives similar power to the Secretary of Defense to start military construction projects “not otherwise authorized by law that are necessary to support,” use of the armed forces. *Id.*

<sup>155</sup> See generally, Marshal Garbus, *Environmental Impact of Border Security Infrastructure: How Department of Homeland Security’s Waiver of Environmental Regulations Threatens Environmental Interests Along the U.S.-Mexico Border*, 31 TUL. ENVTL. L.J. 327, 329–34 (2018) (explaining that new Border wall construction could cause harm to endangered species, animal migratory patterns, National Parks, “[s]ignificant” state and local parks, and exacerbate harmful ecological problems caused by 654 existing miles of Border barriers).

<sup>156</sup> *Id.*

<sup>157</sup> Holland & Cowan, *supra* note 151.

<sup>158</sup> *Id.* at 330.

<sup>159</sup> *Id.*

<sup>160</sup> *Id.* at 330-31 (citing Brian P. Segee & Ana Cordova, *A Fence Runs Through It: Conservation Implications of Recent U.S. Border Security Legislation*, in CONSERVATION OF SHARED ENVIRONMENTS: LEARNING FROM THE UNITED STATES AND MEXICO, 248, (Laura Lopez-Hoffman et al. eds., 2009)).

<sup>161</sup> See Charlie Savage & Robert Pear, *16 States Sue to Stop Trump’s Use of Emergency Powers to Build Border Wall*, N.Y. TIMES, Feb. 18, 2019, at A1 (identifying filed and then-anticipated suits. All anticipated suits have since been filed). Plaintiffs in the various lawsuits include: the nonprofit group Public Citizen (on behalf of Texas landowners and a Texas environmental group), the Center for Biological Diversity (in conjunction with Defenders of Wildlife and the Animal Legal Defense Fund), the American Civil Liberties Union (in conjunction with the Sierra Club), and the nonprofit group Protect Democracy (on behalf of El Paso County and Border Network for Human Rights). *Id.*

denied in part a motion to dismiss in a suit filed by the Center for Biological Diversity.<sup>162</sup>

Although some of these lawsuits focused on the legitimacy of Trump's emergency declaration, each invokes environmental law in some way. For instance, a lawsuit filed jointly by sixteen States Attorneys General in the Northern District of California raises alleged violations of the National Environmental Policy Act (NEPA) as partial grounds for equitable relief.<sup>163</sup> According to the complaint, the Department of Homeland Security (DHS) failed to prepare a mandated Environmental Impact Statement (EIS) which should assess potential adverse effects the wall would have on the environment.<sup>164</sup>

Immigration policy debates have the potential to obscure conversations about environmental justice at the Border. Nevertheless, the most recent litigation over immigration infrastructure illustrates that at this country's Southwest border, immigration crackdowns and environmental harm may always come hand in hand. An in-depth examination of the connection between immigration policy and environmental harm is beyond the scope of this project, but analysis of the EJ implications for EPA's Border programs must proceed cognizant of the ways in which new harms caused by a Border wall might intersect with existing environmental crises in the Southwest.

### III. Analytical Framework

An examination of how environmental health problems disproportionately impact minority communities at the Border shows rampant environmental injustices. The life-threatening, ongoing harm in the region heightens the significance of the tools the federal government uses to combat environmental sources of disease, degradation, and suffering. No matter their particular level of funding, the Border 2020 and BWIP's ability to stimulate progress toward justice becomes uncertain as executive support for them waivers. One might ask, "what do the programs contribute to environmental justice that could be lost," or "does the decision to propose the programs' elimination itself implicate environmental justice?"

Answering these questions requires a framework that reflects the multifaceted nature of EJ. Even when considering only one geographic region, the questions raised here implicate concepts from systemic social problems, to the role of decision-makers, to quality of life, and so many more. Robert Kuehn's 2000

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<sup>162</sup> Brian Segee, *Judge Allows Lawsuit Challenging Trump's Emergency Border Wall Declaration to Proceed*, Center for Biological Diversity (Apr. 2, 2020), <https://biologicaldiversity.org/w/news/press-releases/judge-allows-lawsuit-challenging-trumps-emergency-border-wall-declaration-to-proceed-2020-04-02/>.

<sup>163</sup> Complaint at 52, *California v. Trump*, 379 F.Supp.3d 928 (N.D. Cal 2019) (No. 19-00872). On May 25, 2019, Plaintiffs' motion for preliminary injunction was denied. *Id.* at 960.

<sup>164</sup> *Id.*

article “A Taxonomy of Environmental Justice,”<sup>165</sup> provides a such a framework. When he published the Taxonomy, Kuehn felt environmental justice terminology and definitions failed to capture the “essence and breadth” of environmental justice concerns.<sup>166</sup> He proposed organizing environmental justice issues into four categories to see where “justice” was implicated in issues of “environmental justice.”<sup>167</sup> The following sections briefly explain each category.

### A. Distributive Justice

Kuehn defined distributive justice as “the right to equal treatment, that is, to the same distribution of goods and opportunities as anyone else has or is given.”<sup>168</sup> Distributive justice considerations focus on fair distribution of outcomes, rather than fair processes for arriving at those outcomes.<sup>169</sup> As an example of an allegation of distributive *injustice*, Kuehn pointed to “allegations that people of color and lower income communities have not received their fair share of public health services and other environmental amenities,” such as sited public recreation parks and public transportation.<sup>170</sup>

### B. Procedural Justice

Procedural justice refers to whether the procedures leading to an outcome are fair.<sup>171</sup> Kuehn distinguished procedural justice from distributive justice by articulating it as: “the right to treatment as an equal. That is the right, not to an equal distribution of some good or opportunity, but to equal concern and respect in the political decision about how . . . goods and opportunities are to be distributed.”<sup>172</sup> Essentially, procedural justice concerns whether a particular outcome is reached by democratic decision making (as indicated by inclusiveness, representation, parity, and communication).<sup>173</sup> Procedural justice can be evaluated *ex ante* by examining whether those affected by a decision agree in advance on the process for making the decision. *Ex post* evaluations of procedural justice focus on whether there was fairness in the implementation of a decision-making process.<sup>174</sup>

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<sup>165</sup> See Kuehn, *supra* note 23.

<sup>166</sup> *Id.* at 10681.

<sup>167</sup> *Id.* at 10681-82 (“This taxonomic approach, which moves beyond definitions and expands upon the earlier works of Dr. Robert Bullard and others, offers a method of collapsing the seemingly broad scope of environmental justice and identifying common causes and solutions to environmental injustice. At its heart, this taxonomy seeks to identify the ‘justice’ embodied in the concept of ‘environmental justice.’”).

<sup>168</sup> *Id.* at 10683.

<sup>169</sup> *Id.* at 10684.

<sup>170</sup> *Id.* at 10687 (emphasis added).

<sup>171</sup> *Id.* at 10689. .

<sup>172</sup> *Id.*

<sup>173</sup> *Id.*

<sup>174</sup> *Id.* at 10688-92.

### C. Corrective Justice

Corrective justice analysis focuses on whether there is fairness in how punishments are enforced on lawbreakers, and how damages inflicted on communities are addressed.<sup>175</sup> Kuehn noted that in a broad sense, corrective justice is concerned with the notion that “violators be caught and punished and not reap benefits for disregarding legal standards and that injuries caused by the acts of another, whether a violation of law or not, be remedied.”<sup>176</sup>

### D. Social Justice

Social justice “moves us to use our best efforts to bring about a more just ordering of society—one in which people’s needs are more fully met.”<sup>177</sup> Kuehn described social justice as encompassing two “demands.” First, that every person, regardless of class, has enough resources and power to live a life befitting of a human being.<sup>178</sup> Second, that privileged classes be made accountable to wider society for how they use their advantages.<sup>179</sup> Kuehn noted Bullard’s articulation that environmental justice is a “marriage” between social justice and environmentalism.<sup>180</sup> Environmental justice integrates environmental concerns into a “broader agenda that emphasizes social, racial, and economic justice.”<sup>181</sup>

## IV. A Prognosis for Environmental Justice Problems at the Border

The following discussion section explains what is at stake when EPA threatens to eliminate BWIP and Border 2020; that threat implicates each of Kuehn’s four categories. Each type of justice would worsen at the Border if any of the actions were taken, because each program’s absence has the ability to magnify existing environmental inequity in the region.<sup>182</sup>

### A. Proposed Executive Actions Would Exacerbate Distributive Injustice at the Border

Border residents, particularly in las colonias, do not experience the same distribution of goods and opportunities as others. Economic indicators from the Dallas Fed study suggest this is true whether we compare colonias residents’ opportunities to others in their own states, or the analysis expands nationwide.<sup>183</sup>

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<sup>175</sup> *Id.* at 10693.

<sup>176</sup> *Id.*.

<sup>177</sup> *Id.* at 10698.

<sup>178</sup> *Id.*

<sup>179</sup> *Id.*

<sup>180</sup> *Id.* at 10699.

<sup>181</sup> *Id.*

<sup>182</sup> *See supra* notes 28-29 and accompanying text.

<sup>183</sup> *See* Chahin, *supra* note 24 and accompanying text.

Border 2020 and the BWIP have not completely leveled the playing field for Border residents. However, the programs' utility for distributive justice should not be dismissed simply because outcome inequity persists at the Border. Border 2020 and BWIP remain valuable to distributive justice for two reasons.

First, in an outcomes-based evaluation, BWIP and Border 2020 have proven to be meaningful wellsprings for providing Border residents outcomes that are environmental health standards elsewhere in the United States. Perhaps the BWIP's progress in las colonias is most illustrative of the programs' ability to contribute to distributive justice. Many colonias lack the water infrastructure critical to guaranteeing residents do not experience deadly and highly contagious diseases.<sup>184</sup> BWIP is responsible for hundreds of thousands of new wastewater treatment connections, and tens of thousands more residents have access to potable drinking water due to the program's grant funding.<sup>185</sup> This progress toward outcome equity—though it comes decades after identifying water problems at the Border—suggests eliminating the programs would almost certainly worsen residents' chances for distributive justice in years to come.

Second, the programs' utility for distributive justice suggests their impact is favorably disproportionate to their cost. Both programs are very small compared to EPA's proposed \$6.658-billion budget for FY 2021.<sup>186</sup> But, at this small cost, they contribute measures that provide Border residents radical, life-saving outcomes that are *standard* in other regions.

## **B. Proposed Executive Actions are Antithetical to Procedural Justice**

Analyzing the impact Border 2020 and BWIP's uncertain future has on procedural justice requires a determination of whether fair procedures precede decisions to reduce their funding or eliminate them. Shrinking or eliminating Border 2020 and BWIP would be contrary to procedural justice for two reasons. First, the decision to eliminate or fund Border 2020 and BWIP would almost certainly be done without affording disadvantaged communities equal access to decision making processes. Second, eliminating the programs could cause regression in the ways the programs and their funded projects have affirmatively contributed to procedural justice.<sup>187</sup>

### **1. Border Communities Have Extremely Limited Access to Decision Making Channels**

The ability of civilian residents to participate in decision-making surrounding Border 2020 or BWIP's future is attenuated at best. That attenuation is partially linked to the fact that a federal agency administers the programs—a structure that is arguably antithetical to procedural justice from inception. In 2000, Kuehn identified “[a] common procedural justice complaint at the national level is

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<sup>184</sup> See *supra* notes 46-48 and accompanying text.

<sup>185</sup> See *supra* notes 125-128 and accompanying text.

<sup>186</sup> Budget in Brief 2021, *supra* note 13, at 15.

<sup>187</sup> See Kuehn, *supra* note 23, at 10689.



that people of color and lower income communities have had little influence on the decisionmaking processes of legislatures and environmental agencies.”<sup>188</sup> He argued one source of this complaint is that minorities are not well represented in federal environmental agencies—presumably as employees or appointed administrators.<sup>189</sup> Recent demographic data from the Office of Personnel Management regarding diversity in the federal government workforce illuminates that representation remains problematic nearly two decades after Kuehn published the taxonomy. Although Hispanics are the largest racial minority in the U.S. (18.1 percent), as of FY 2016, they make up just 8.6 percent of all federal workers.<sup>190</sup>

The number of Border residents employed by the federal government is not readily accessible. However, given that Hispanics (the community of color that predominates the Border’s population) are severely underrepresented in the federal workforce, it appears safe to presume that Border residents are underrepresented in executive agencies like EPA as well.<sup>191</sup> Using OPM’s data to approximate Border resident representation as it relates to Native Americans is less cleanly done. Native Americans at once appear over-represented by .3 percent in a strict comparison of OPM to Census data, but potentially under-represented considering demographic data consistently group American Indians and Alaskans together; either group’s makeup of the whole is unclear. The overall picture of representation suggests that to the extent employment at EPA might afford access to decisionmaking over Border 2020 or BWIP, that access is not afforded to the members of disadvantaged communities experiencing ongoing environmental harm at the Border.

Perhaps the closest link between Border residents and decision-making officials is the ballot box. Some have the chance to influence environmental policy with their votes. The EPA is lead by its Administrator, a cabinet-level political appointee, who is selected by the President and confirmed by the United States Senate. The President and Senators—elevated to power by elections—therefore play a role in empowering the EPA’s leader. Voting residents whose candidate of choice wins her election may feel their views on environmental policy are meaningfully acted on by empowered decision-makers. If the elected politicians influencing EPA were advocates for the Border’s environment, it would be a

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<sup>188</sup> *Id.* at 10689.

<sup>189</sup> *Id.*

<sup>190</sup> 2018 estimates from the U.S. Census Bureau regarding the minority groups discussed in this paper are as follows: 18.1% of the U.S. population is Hispanic or Latino, and 1.3% is Native American or Alaskan. See *Quick Facts*, UNITED STATES CENSUS BUREAU, <https://www.census.gov/quickfacts/fact/table/US/PST045218> (last visited May 8, 2019). OPM’s data reveals that as of FY 2016, 8.6% of federal workers were Hispanic and 1.6% was Native American Indian or Alaskan Native. As of this writing, the most recent available data from OPM is the FY 2016 data. UNITED STATES OFFICE OF PERSONNEL MANAGEMENT, FEDERAL EQUAL OPPORTUNITY RECRUITMENT PROGRAM (FEORP) REPORT TO CONGRESS 2 (2018).

<sup>191</sup> According to the United States-Mexico Border Health Commission, American Hispanics are more likely than non-Hispanic Whites to reside in the West and South. See UNITED STATES-MEXICO BORDER HEALTH COMMISSION, THE UNITED STATES-MEXICO BORDER REGION AT A GLANCE 1, [http://www.nnirr.org/drupal/sites/default/files/unm\\_the\\_us\\_mexico\\_border\\_region\\_at\\_a\\_glance.pdf](http://www.nnirr.org/drupal/sites/default/files/unm_the_us_mexico_border_region_at_a_glance.pdf) (last visited Aug. 9, 2020).

positive indication for procedural justice, and would increase the likelihood that the people deciding whether to keep or fund Border 2020 and BWIP would appreciate the concerns and needs of affected residents. However, as it relates to EPA's Border programs, the ability for voting to achieve procedural justice is limited.

Many members of Congress that represent Border districts in the United States appear to emphatically support funding Border 2020 and BWIP. This may be why Congressional representatives are responsible for the programs' continued survival despite their annually-proposed elimination. However, procedural justice is undermined by the fact that the elected official leading the branch and ultimately responsible for proposing the programs' elimination—President Trump—was overwhelmingly unsupported by votes from Border districts. The majority of Border counties instead voted for Hillary Clinton, further calling into question whether decisions around Border 2020 and BWIP have been made with affected communities' values and needs in mind.<sup>192</sup>

## **2. Threats to the Programs Undermine their Contributions to Procedural Justice**

Procedural justice advances when the government collects and analyzes data on environmental harm in a manner that accounts for the experiences of disadvantaged communities.<sup>193</sup> The types of projects funded by these programs, particularly by Border 2020, advance Americans' capability to understand environmental harm through studies that assess the particular threats to the Border region. Border 2020's air quality projects are notable examples of the program's ability to advance procedural justice in this regard. Air quality projects include the North American Research Partnership's study of how reducing vehicle wait times at the Nogales Port of Entry could reduce emissions and improve air quality.<sup>194</sup> Grants have supported the expansion of air quality monitoring devices and improved access to air quality data for U.S. and Mexican stakeholders. Advancing data collection in a region that contains disadvantaged minority and low-income communities shows Border 2020's promise for contributing to procedural justice.

Furthermore, projects funded by Border 2020 and BWIP are designed to benefit communities historically underserved by government research.<sup>195</sup> The children's environmental health grants from Border 2020 are emblematic of this aspect of procedural justice. Residents' ability to propose projects can be seen as

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<sup>192</sup> An interactive map of 2016 election results with state- and county-level voting data is available from *The New York Times*. See *Presidential Election Results: Donald J. Trump Wins*, N.Y. TIMES, ELECTION 2016, <https://www.nytimes.com/elections/2016/results/president> (last visited April 1, 2019).

<sup>193</sup> See Kuehn, *supra* note 23, at 10689-90 (discussing a National Institutes of Health and EPA \$15 million study on the health of farmers and farmworkers which omitted Hispanics from the study despite farm workers being majority Hispanic).

<sup>194</sup> *Quantifying Emission Reduction, Queue Reduction, and Delay Reduction Benefits from the Nogales Unified Cargo Processing Facility*, Border 2020 (April 2019), <https://naresearchpartnership.org/wp-content/uploads/2019/05/Final-Report-on-Mariposa-NB-Comercial-Vehicle-Analysis-April-2019.pdf>.

<sup>195</sup> See Kuehn, *supra* note 23, at 10689-90.

meaningful input in the decision-making process. Grant proposals are one way for traditionally unheard residents to communicate what programs, supplies, or infrastructure would be most helpful in advancing environmental health from within their communities. Of course, various mundane changes in the grant proposal structure could change the procedural justice impact of community grant proposals—EPA could, for example, accept fewer proposals, make submission requirements more difficult, or shorten the submission window. But no obstacle to procedural justice in this regard would be as great as eliminating the programs entirely. If the programs are cut, the ability of disadvantaged community members to propose projects could disappear entirely. Ultimately, procedural justice is undermined by proposed elimination of these programs because it would weaken one of only a few participatory tools available to minority and low-income communities for addressing environmental health in their region.

### C. Corrective Justice at the Border Would Worsen with Proposed Executive Actions

At first, corrective justice appears to be the most difficult aspect of Kuehn’s framework to apply in the context of EPA’s investment at the Border. The proposed budgetary and spending actions here are not illegal. However, Kuehn explained that corrective justice in the EJ context “seeks more than just retribution or punishment of those who violate legal rules of conduct.”<sup>196</sup> Kuehn’s conception of corrective justice is a “broader, applied sense that violaters be caught . . . .”<sup>197</sup> What can be said about the threat to EPA Border programs—particularly in an era of potential wall construction—is that it may launch the region into a type of corrective justice uncertainty.

The uncertainty surrounding Border 2020 and BWIP would limit their ability to effect any type of mitigating influence projects could have on the harm caused by wall construction.<sup>198</sup> As with the ability of Border 2020 and BWIP to address environmental infrastructure and pollution problems at the Border, the programs also have the ability to address problems created by wall construction, including erosion and flooding. This valuable mitigating effect might be disappearing as immigration infrastructure construction continues a historical pattern of executive officials waiving environmental obligations to build faster, cheaper, and in their preferred path.<sup>199</sup> As it did in the Bush Administration, the

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<sup>196</sup> See Kuehn, *supra* note 23, at 10694 (emphasis added).

<sup>197</sup> *Id.*

<sup>198</sup> See, e.g., Autumn 2018 Progress Report, *supra* note 121, at 13-14 (discussing projects addressing water management programs designed to improve stormwater management, lessen erosion, and prevent flooding).

<sup>199</sup> While constructing existing border fencing during the George W. Bush Administration, then-Secretary of Homeland Security Michael Chertoff waived all statutes that may apply to border wall construction including NEPA and the Endangered Species Act. See LINDSAY ERIKSSON AND MELINDA TAYLOR, THE ENVIRONMENTAL IMPACTS OF THE BORDER WALL BETWEEN TEXAS AND

Department of Homeland Security issued a waiver of several environmental, natural resource, and land management laws to “ensure . . . expeditious construction of barriers and roads.”<sup>200</sup> If immigration infrastructure continues while the government continues to avoid performing an Environmental Impact Statement (EIS), the risk of damage to the Border environment will be further obscured. It will certainly be difficult to ensure that damage is addressed and ameliorated fairly if the government is never tasked with identifying those potential damages or developing a plan to remediate them.

#### **D. Proposed Executive Actions Would Undermine Social Justice**

Social injustice is pervasive at the Border.<sup>201</sup> Border 2020 and BWIP have positively contributed to addressing the systemic inequities that lead to social and environmental injustice in the region—but their contributions would be compromised if the programs are eliminated or underfunded. The programs have particular utility for the first “demand” of social justice: that every person has enough resources to live a suitable life.

A social justice framework invokes questions about how oppressive systems impact human experience, and the healthcare system is one marked by inequity in the United States. In its background, this paper explained the well-documented public health crises plaguing the Border. A community’s ability to respond to these crises is likely only as good as the medical care available there. These projects funded by Border 2020 and BWIP are pathways for Border residents to receive basic human supplies that are “community health” indicators, and have been disturbingly unavailable in the region for decades. In a book chapter devoted to health in the colonias, Marlynn May explained the interconnectedness between unhealthy border conditions and the systemic inequities that implicate social justice:

“Community health encompasses things like access to potable water, sewer service, passable roads, substantial housing, adequate disposable income, and availability of transportation. . . . The fact is that colonias are buried in surrounding social, political, and economic systems that often have only minimally enabled—and in other ways disabled—access to community conditions of health. . . . Without access to positive conditions of community health, colonia residents’ capacity to consume and practice curative and

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MEXICO 2-3, <https://law.utexas.edu/humanrights/borderwall/analysis/briefing-The-Environmental-Impacts-of-the-Border-Wall.pdf> (last visited June 23, 2020).

<sup>200</sup> Press Release, Dept. of Homeland Sec., DHS Issues Waiver to Expedite Border Construction Projects in San Diego Area (Aug. 1, 2017), <https://www.dhs.gov/news/2017/08/01/dhs-issues-waiver-expedite-border-construction-projects-san-diego-area>.

<sup>201</sup> The relationship between problems facing the Border and social justice is substantial enough to be the basis for entire books on the subject. *See, e.g.*, SOCIAL JUSTICE IN THE U.S.-MEXICO BORDER REGION, (Mark Lusk et al. eds., 2012) (discussing the degree to which social and economic injustice contribute to environmental racism, immigration militarism, institutional sexism and discrimination, health inequities, and an economy based on low-wage labor).

preventative healthcare is diminished.”<sup>202</sup>

Thus, the EPA programs’ contributions to social justice are at least two-pronged. First, the projects they fund directly improve the indicia of community health. In fact, Border 2020 and BWIP addressed many of May’s community health indicia in 2018 alone.<sup>203</sup>

Second, the programs improve the capacity for quality healthcare in the region. They do so indirectly through the aforementioned improvements, but also directly by addressing deficits in Border healthcare services that hinder patient outcomes like underinsurance and lacking healthcare infrastructure.<sup>204</sup> Border 2020 grants operate within this system to improve how minority and low-income residents obtain healthcare services. For instance, many Border 2020 projects depend on Promotoras to facilitate their interventions.<sup>205</sup> As bilingual members of underserved communities, Promotoras can bridge the gap between minority and low-income Border residents and healthcare workers treating them, potentially leading to greater comprehension and participation on both sides.<sup>206</sup> Furthermore, Promotoras’ training in project-specific interventions allows them to teach other Border residents how to prevent exposure to toxins and disease without needing a trained doctor or nurse.<sup>207</sup>

In their design, some programs show an especially promising ability to address EJ-related healthcare concerns. A Border 2020-funded collaboration between EPA and the City of Brownsville, Texas aimed to identify breeding hotspots for mosquitoes that spread Zika virus.<sup>208</sup> The project identified vulnerable areas in Brownsville by combining mosquito activity measurements with environmental data and socioeconomic indicators such as the age, condition, and

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<sup>202</sup> Marlynn May, *Living Betwixt and Between: Conditions of Health in Borderland Colonias*, in THE COLONIAS READER: ECONOMY, HOUSING, AND PUBLIC HEALTH IN U.S.-MEXICO BORDER COLONIAS 163, 169 (Angela J. Donelson and Adrian X. Esparza eds., 2010).

<sup>203</sup> Beyond the projects already discussed in this paper, Border 2020 addressed disposable income in 2018 by funding an energy-saving program. The 50 homes supported by the project saw \$630 in energy cost savings and \$500 in water savings. See Autumn 2018 Progress Report, *supra* note 121, at 6.

<sup>204</sup> May, *supra* note 164, at 169.

<sup>205</sup> Among the Border 2020 projects mentioned in this paper, the Imperial Valley Asthma program, Brownsville-EPA Zika program, and two programs receiving childhood environmental health funds all use *Promotoras*.

<sup>206</sup> See *EPA and Brownsville, TX, Team Up to Address Mosquito-Borne Disease Risk*, U.S. ENVTL PROT. AGENCY, <https://www.epa.gov/sciencematters/epa-and-brownsville-tx-team-address-mosquito-borne-disease-risk> (last updated Dec. 28, 2017) (noting “*Promotoras* have historically played an important role as liaisons between their communities and healthcare workers and city officials.”).

<sup>207</sup> *Id.* (“This train-the-trainer model has the potential to magnify the reach and impact of EPA’s risk analysis work in Brownsville, and ultimately help lead to better health outcomes.”).

<sup>208</sup> Border 2020 Autumn Highlights 2018, *supra* note 120, at 27.

density of housing.<sup>209</sup> By using socioeconomic data in addressing a scientific phenomenon, researchers ultimately found that poor Border residents were more vulnerable to Zika exposure.<sup>210</sup> To intervene, the grant recipients developed a training program to assist residents in identifying hotspots.<sup>211</sup> They also developed a platform which allows trained residents to circulate information and pictures about hotspots they find.<sup>212</sup>

## V. BWIP Funding in the United States–Mexico–Canada Agreement

As with any federally-administered program, the vitality of BWIP and Border 2020 is intertwined with politics and current events. After years of insufficient resources, an alternative source has lifted BWIP funds to previously unseen levels. In January 2020, several Democratic representatives shoehorned \$300 million in funding for BWIP into the United States–Mexico–Canada Agreement (USMCA), a trade bill considered the replacement for NAFTA.<sup>213</sup> That figure represents the largest investment in transborder environmental improvement in decades.<sup>214</sup> The previously-mentioned representatives who annually advocated for these programs were among those instrumental in the USMCA booster shot to BWIP and touted this funding as a legislative success.<sup>215</sup> Many observers would be rightfully optimistic that the Border EJ landscape is improving. Even still, any optimist should remain cautious, because an equally colorable argument exists that the funding leaves Border EJ communities with more questions than answers.

For instance, what does it mean that the funding arose out of a trade agreement, not an initiative singularly focused on international collaboration on environmental improvement? What involvement, if any, will the EJ communities themselves have in distributing the funds to ensure the most helpful projects receive backing? And, where along the Border will money be spent—will more high profile urban communities be favored over “forgotten” rural colonias? At the time of writing, the answers to these questions are unknown. Nevertheless, the foregoing analysis remains instructive because applying Kuehn’s framework highlights how the programs can be funded and administered in a just manner. Distributing the USMCA funds and administering the USMCA-backed BWIP will likely be most equitable if the principles of distributive, procedural, corrective, and social justice

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<sup>209</sup> EPA and Brownsville, TX, *Team Up to Address Mosquito-Borne Disease Risk*, *supra* note 206.

<sup>210</sup> *Id.*

<sup>211</sup> *Id.*

<sup>212</sup> *Id.*

<sup>213</sup> Press Release, U.S. Representative Juan Vargas, Rep. Vargas Release Statement on USMCA Passage Including Funding to Combat Cross-Border Pollution (Dec. 19, 2019), <https://vargas.house.gov/media-center/press-releases/rep-vargas-releases-statement-on-usmca-passage-including-funding-to>. *See also* Bruno, *supra* note 9.

<sup>214</sup> Bruno, *supra* note 9.

<sup>215</sup> Press Release, U.S. Representative Juan Vargas, *supra* note 208 (“I am proud to say that we have all cooperated to get to this point and we are one step closer. My colleagues from the San Diego Congressional Delegation and I will continue to take meaningful action in Congress towards addressing transboundary sewage flows from flowing into the United States.”).

guide the funds to the service of Border residents continually plagued by poor environmental quality.

## **VI. Conclusion**

The U.S.-Mexico Border region is an area of the United States where minority and tribal residents suffer life-threatening harm due to environmental inequity. Residents who cannot afford air conditioning or window screens live in fear of Zika virus or Lyme disease. Arizonans in the path of the IOI must hope each time a monsoon comes that they won't soon smell the stench of sewage bursting from its line. Across the Border states, children's breath regresses into wheezing as they suffer the effects of constantly inhaling polluted air. These are not shocking, recent developments in environmental injustice—they are the product of land use practices rooted in discrimination that began decades ago.

To make progress toward environmental justice over these monumental obstacles, there is an urgent need for federal support. That support exists in the form of Border 2020 and BWIP—two programs microscopic in their share of the federal budget, but enormous in their ability to advance justice. Nevertheless, the future of these programs remains uncertain as EPA continually threatens to eliminate them and the Trump Administration seeks to construct a Border wall. Application of Kuehn's environmental justice considerations to existing scholarship about the Border suggests that eliminating these programs would undermine each category of justice. The prognosis for environmental justice at the Border is bleak when the EPA cannot support Border residents, scientists, and activists to promote health improvement in their own communities.