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CLEANING UP THE COLONIAS: MUNICIPAL ANNEXATION AND THE TEXAS FRACKING BOOM

ALEJANDRA C. SALINAS *

Abstract: For the hundreds of thousands of Americans who reside in poor, unincorporated settlements along the Texas-Mexico border called Colonias, a new source of hope has arisen from the unlikeliest of sources: fracking. Until recently, many Colonias were just shantytowns riddled with costly infrastructure problems that caused various environmental health concerns. Through fracking in South Texas' Eagle Ford Shale, Colonias are now part of one of the greatest oil booms this country has ever seen. The Eagle Ford Shale's economic output has generated billions in tax revenue across Texas and has transformed the value of the land that the Colonias dwell on. This Note examines Texas' history of Colonias, its experiences with fracking and its local government structures, and suggests that the annexation of Colonias by nearby municipalities would be a mutually beneficial solution that could substantially remedy the Colonias environmental health concerns and increase local property tax revenue.

INTRODUCTION

When one thinks of hydraulic fracturing (“fracking”) and minority communities, the thoughts are often riddled with skepticism and concern about the horrid environmental and social justice impacts.¹ Yet, in South Texas, fracking has created a source of hope for hundreds of thousands of residents that call the orphaned American settlements known as the Colonias home.² The Colonias, often characterized as the third world of the United States, are poor, unincorporated settlements located on the outskirts of municipalities near the U.S.-Mexico border.³ Residents in the Colonias often face extreme poverty, minimal

* Senior Articles Editor, BOSTON COLLEGE ENVIRONMENTAL AFFAIRS LAW REVIEW, 2014–2015.

¹ See Dave Fehling, *The Father of Environmental Justice Sees Danger in How Texas Regulates*, STATEIMPACT (Sept. 19, 2013, 6:30 AM), <http://stateimpact.npr.org/texas/2013/09/19/the-father-of-environmental-justice-sees-danger-in-how-texas-regulates/>, archived at <http://perma.cc/QX6N-FYBD>; see also U.S. ENVTL. PROT. AGENCY, OFFICE OF RESEARCH & DEV., PLAN TO STUDY THE POTENTIAL IMPACTS OF HYDRAULIC FRACTURING ON DRINKING WATER RESOURCES 53 (2011), available at http://www2.epa.gov/sites/production/files/documents/hf_study_plan_110211_final_508.pdf, archived at <http://perma.cc/SX7-VAZS>.

² See *infra* notes 239–302 and accompanying text.

³ See David L. Hanna, Comment, Third World Texas: NAFTA, State Law, and Environmental Problems Facing Texas Colonias, 27 ST. MARY'S L.J. 871, 878 (1996); Peter Applebome, Along U.S. Border,

environmental protections, contaminated water supplies, and diseases that are most often associated with undeveloped nations.⁴ In 2015, Colonias nonetheless remain because of the significant amount of resources that will be required to address and remedy their various infrastructure deficiencies.⁵

Nevertheless, due to the significant capital being generated from the fracking operations, Colonias in South Texas are no longer just parcels of land riddled with costly infrastructure problems.⁶ Instead, they are now valuable pieces of property at the epicenter of an economic boom.⁷ The fracking operations in South Texas are part of the Eagle Ford Shale development, an oil and natural gas venture that in 2012 alone generated over \$46 billion in economic output and has put the United States on track to become the world's largest oil producer within the next decade.⁸ This dramatic shift in value has created a

A Third World is Reborn, N.Y. TIMES, Mar. 27, 1988, at 1, available at <http://www.nytimes.com/1988/03/27/us/along-us-border-a-third-world-is-reborn.html>, archived at <http://perma.cc/FS5A-5FPJ>; COLONIAS History, U.S. DEP'T OF HOUS. & URBAN DEV., http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/programs/colonias/history (last visited Oct. 14, 2014), archived at <http://perma.cc/DRQ8-FKTX> (noting that of the four border states—Texas, New Mexico, Arizona, and California—Texas has the most Colonias).

⁴ See RONALD J. DUTTON ET AL., SURVEY OF HEALTH AND ENVIRONMENTAL CONDITIONS IN TEXAS BORDER COUNTIES AND COLONIAS 23 (2000), available at https://www.dshs.state.tx.us/borderhealth/publications_reports.shtm, archived at <http://perma.cc/Z24D-6QG6>; Hanna, *supra* note 3, at 878–80; Applebome, *supra* note 3, at 1.

⁵ See Emily Ramshaw, *Improvement Comes Up Short in South Texas Colonias*, N.Y. TIMES, July 8, 2011, at A19A, available at <http://www.nytimes.com/2011/07/08/us/08tconditions.html>, archived at <http://perma.cc/3ACY-VLAQ>; *Colonias Prevention*, ATTORNEY GEN. OF TEX., <https://www.texasattorneygeneral.gov/consumer/border/colonias.shtml> (last updated Aug. 30, 2013), archived at <http://perma.cc/H7ZB-EY2U> (identifying over 1800 Colonias across South Texas).

⁶ See FED. RESERVE BANK OF DALL., TEXAS COLONIAS: A THUMBNAIL SKETCH OF THE CONDITIONS, ISSUES, CHALLENGES AND OPPORTUNITIES 3 (2007), available at <http://www.dallasfed.org/assets/documents/cd/pubs/colonias.pdf>, archived at <http://perma.cc/Y2WS-UXQZ>; Chad Foster, *Texas Monthly Brainstorm: Eighty-Two Various and Visionary Ideas for How to Make Texas a Better Place. (Better Than It Already Is, of Course, Which Is Pretty Darn Good)*, TEX. MONTHLY, May 1, 2009, at 165, available at <http://www.texasmonthly.com/story/texas-monthly-brainstorm>, archived at <http://perma.cc/XKM4-4N4Q>; Vicki Vaughan, *Drilling in the Eagle Ford Shale Sparks S. Texas Job Boom*, HOUSTON CHRON. (May 23, 2011), <http://www.chron.com/business/energy/article/Drilling-in-the-Eagle-Ford-shale-sparks-S-Texas-1685388.php>, archived at <http://perma.cc/89X9-5WGS>.

⁷ See Manny Fernandez & Clifford Krauss, *Boom Meets Bust in Texas: Atop Sea of Oil, Poverty Digs In*, N.Y. TIMES, June 29, 2014, at A1; Asher Price, *In Eagle Ford Shale Play, a Changing Role for South Texas, Residents*, STATESMAN.COM (Sept. 24, 2012, 12:10 PM), <http://www.statesman.com/news/news/state-regional/in-eagle-ford-shale-play-a-changing-role-for-sou-1/nSLb2/>, archived at <http://perma.cc/J9SK-WJWY> (highlighting the impact of the Eagle Ford Shale across the South Texas region); see also FED. RESERVE BANK OF DALL., *supra* note 6, at 1 (identifying Colonias locations along the Texas-Mexico border).

⁸ See CTR. FOR CMTY. & BUS. RESEARCH, THE UNIV. OF TEX. AT SAN ANTONIO INST. FOR ECON. DEV., ECONOMIC IMPACT OF THE EAGLE FORD SHALE 9 (2013), available at <http://ccbr.iedtexas.org/index.php/Our-Projects/economic-impact-of-the-eagle-ford-shale.html>; David Blackmon, *The Texas Shale Oil & Gas Revolution—Leading the Way to Enhanced Energy Security*, FORBES (Mar. 19, 2013, 10:13 AM), <http://www.forbes.com/sites/davidblackmon/2013/03/19/the-texas-shale-oil-gas-revolution-leading-the-way-to-enhanced-energy-security/>, archived at <http://perma.cc/F75J-H75H>; Grant Smith, *U.S. to Be*

new potential solution for Colonias that nearby municipalities have strongly avoided: annexation.⁹

Traditionally, annexation of a Colonia would only benefit the Colonia's residents and would impose substantial infrastructure costs on the receiving municipality, such as expensive installations of power lines and sewer systems.¹⁰ The Eagle Ford Shale development, however, makes annexation mutually beneficial to both the Colonias and the municipalities.¹¹ If annexed, drilling and subsidiary industries operating on the newly annexed land would become subject to local property taxes.¹² Such taxes have the potential to generate significant local revenue, as the fourteen counties actively producing oil are expected to collectively generate over \$60 billion in economic output by 2022.¹³

This Note examines the unique challenges posed to advocates seeking to address infrastructural problems suffered by the Colonias through annexation by and into nearby municipalities.¹⁴ Part I explains the history and present environmental and health challenges facing Colonias in Texas.¹⁵ Part II discusses the Eagle Ford Shale development and the environmental impacts of fracking on Colonias and adjacent municipalities.¹⁶ Part III then explores the annexation process in Texas and the discrepancy between the health and environmental standards of counties and their municipalities.¹⁷ Finally, part IV argues that environmental and social justice proponents seeking to address the challenges facing the Colonias should advocate for annexation by nearby municipalities because doing so will alleviate many of the environmental and health issues that currently exist.¹⁸

Top Oil Producer by 2015 on Shale, IEA Says, BLOOMBERG (Nov. 12, 2013, 11:47 AM), <http://www.bloomberg.com/news/2013-11-12/u-s-nears-energy-independence-by-2035-on-shale-boom-iea-says.html>, archived at <http://perma.cc/5F9N-QMGY>. The Eagle Ford Shale is a hydrocarbon formation capable of producing oil and natural gas. Neena Satija, *Eagle Ford Shale Region Sees Benefits, Concerns*, TEX. TRIB. (Sept. 5, 2013), <http://www.texastribune.org/2013/09/05/eagle-ford-shale-region-sees-benefits-challenges/>, archived at <http://perma.cc/DMZ6-DF2H>.

⁹ See *infra* notes 245–302 and accompanying text.

¹⁰ See FED. RESERVE BANK OF DALL., *supra* note 6, at 3 (“Cities are often hesitant to annex colonias because city residents do not want to share the financial burden of providing services to colonia residents.”); Foster, *supra* note 6, at 165. Infrastructure installation also includes water treatment and paved roads. *Id.*

¹¹ See *infra* notes 287–98 and accompanying text.

¹² See *infra* notes 292–98 and accompanying text.

¹³ Economic Impact of the Eagle Ford Shale, *supra* note 8, at 14.

¹⁴ See *infra* notes 20–317 and accompanying text.

¹⁵ See *infra* notes 19–122 and accompanying text.

¹⁶ See *infra* notes 123–61 and accompanying text.

¹⁷ See *infra* notes 162–238 and accompanying text.

¹⁸ See *infra* notes 239–316 and accompanying text.

I. COLONIAS IN TEXAS

Colonia, a Spanish word for neighborhood, is an identifiable unincorporated community with marginal housing conditions and infrastructure that is within 100 miles of the border between the United States and Mexico.¹⁹ In 2013, the Office of the Texas Attorney General identified over 1800 Colonias in twenty-nine counties across the Texas-Mexico border, and in 2014, an estimated 500,000 people continue to live in Colonias.²⁰ Residents of the Colonias are predominantly Hispanic, members of larger nuclear families, and over seventy five percent of them are American citizens.²¹ Compared to the general U.S. border communities, Colonias experience a much higher proportion of poverty.²² Unemployment is eight times higher in Colonias than in the rest of the state.²³ Annual household incomes for counties with Colonias are approximately \$7000, compared to the state average of \$16,717.²⁴

A. History of the Colonias

Although Colonias currently serve as examples of abject poverty, their origins can be traced to the former economic prosperity in the U.S.-Mexico border region.²⁵ The 1960s saw the emergence of the Mexican maquiladora: a manufacturing plant in Mexico that was owned by a foreign corporation.²⁶ Maquiladoras offered an inexpensive source of labor, and were economically attractive to American investors because of trade agreements that allowed raw materials to travel tax-free across the U.S.-Mexico border and because of Mex-

¹⁹ See TEX. GOV'T CODE ANN. § 775.001 (West 2007); Hanna, *supra* note 3, at 878; *State Community Development Block Grant: COLONIAS*, U.S. DEPT. OF HOUS. & URBAN DEV., http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/programs/colonias (last visited Oct. 1, 2014), *archived at* <http://perma.cc/8BMY-UZVP>.

²⁰ Fernandez & Krauss, *supra* note 7, at A1. Due to lax land regulation in county territory, Texas became the primary site of Colonias across the southwest border region. See Roderick R. Williams, Note, *Cardboard to Concrete: Reconstructing the Texas Colonias Threshold*, 53 HASTINGS L.J. 705, 712 (2002).

²¹ Hanna, *supra* note 3, at 880; see DUTTON, *supra* note 4, at 12.

²² See DUTTON, *supra* note 4, at 15; FED. RESERVE BANK OF DALL., *supra* note 6, at 7; Hanna, *supra* note 3, at 880. Approximately 42% of Colonia residents live below the federal poverty line, compared with the national percentage of 14.3% U.S. residents living below the federal poverty line. Fernandez & Krauss, *supra* note 7, at A1.

²³ Fed. Reserve Bank of Dall., *supra* note 6, at 7.

²⁴ *Id.*

²⁵ See CHIPS: MONITORING COLONIAS ALONG THE UNITED STATES-MEXICO BORDER IN TEXAS, U.S. GEOLOGICAL SURVEY 1 (2008), *available at* <http://pubs.usgs.gov/fs/2008/3079/pdf/fs2008-3079.pdf>, *archived at* <http://perma.cc/9JE6-87LY>; Hanna, *supra* note 3, at 881; Williams, *supra* note 20, at 707.

²⁶ See Williams, *supra* note 20, at 707.

ico's lower operation costs.²⁷ The maquiladoras created millions of jobs in Mexico and spurred rapid population growth across both sides of the border.²⁸

This population growth was met in the United States by a shortage of affordable housing, forcing Mexican immigrants to pursue rural homestead lots from land developers generally through a contract-for-deed program.²⁹ These plots of land were sold at affordable rates with the promise that electrical, water, and sewage infrastructure systems would eventually be put into place by the developer.³⁰ The developers' promises, however, were never fulfilled and rural settlements that lacked sufficient infrastructure to provide water, power, and transportation—settlements now known as Colonias—emerged.³¹

Although economic and population growth from maquiladoras occurred in other border states,³² the development of Colonias primarily occurred in Texas.³³ The lack of regulatory authority at the county level created a “regulatory vacuum” that developers exploited.³⁴ Whereas municipalities were capable of implementing regulations that required subdivision developers to provide roads, drainage, and access to public services such as water, sewage disposal, and trash collection,³⁵ the counties lacked the authority to impose any such requirements for the unincorporated Colonias.³⁶ Developers thus easily circumvented regulatory oversight by developing and selling properties outside municipal jurisdictions.³⁷ Over the next two decades—into the 1980s—Colonias proliferated, relatively unchecked, across South Texas.³⁸

²⁷ See FERNANDO ROMERO, *HYPER-BORDER: THE CONTEMPORARY U.S.-MEXICO BORDER AND ITS FUTURE* 97–100 (2008). Mexico offered low operations cost because it provided access to lower-wage workers and close proximity to the United States to maintain inexpensive trade processes. *Id.*

²⁸ See ROMERO, *supra* note 27, at 100; Williams, *supra* note 20, at 707.

²⁹ See CHIPS: MONITORING COLONIAS ALONG THE UNITED STATES-MEXICO BORDER IN TEXAS, *supra* note 25, at 1; Hanna, *supra* note 3, at 881. Contract-for-deed arrangements prevent the buyer from actually acquiring title to the land until the final payment is received. Williams, *supra* note 19, at 712.

³⁰ CHIPS: Monitoring Colonias Along the United States-Mexico Border in Texas, *supra* note 25, at 1; Williams, *supra* note 20, at 709.

³¹ See Williams, *supra* note 20, at 709.

³² Vinit Mukhija & Paavo Monkkonen, *What's in a Name? A Critique of 'Colonias' in the United States*, 31 INT'L J. URB. REGIONAL RES. 475, 475–76 (2007).

³³ See CHIPS: Monitoring Colonias Along the United States-Mexico Border in Texas, *supra* note 25, at 1; see also Hanna, *supra* note 3, at 881.

³⁴ See Jane E. Larson, *Free Markets Deep in the Heart of Texas*, 84 GEO. L.J. 179, 197 (1995); Williams, *supra* note 20, at 712.

³⁵ See Larson, *supra* note 34, at 197; Williams, *supra* note 20, at 712–13.

³⁶ See Larson, *supra* note 34, at 197 (using El Paso county as an example); Williams, *supra* note 20, at 712–13.

³⁷ See Larson, *supra* note 34, at 197; Williams, *supra* note 20, at 712–13.

³⁸ See Larson, *supra* note 34, at 197.

B. Environmental Challenges Facing Colonias

The impoverished conditions in the Colonias that quickly developed in the 1960s, 1970s, and 1980s lead to a variety of environmental challenges, which still exist today.³⁹ Water-related issues are among the most significant environmental challenges that have developed.⁴⁰ Colonias lack adequate infrastructure to provide acceptable drinking water treatment and distribution; there are no water treatment plants, there is insufficient sewage collection capacity, and insufficient sewage treatment plants.⁴¹ Even with adequate municipal infrastructure, Colonias are often unable to connect to the municipal system.⁴² Thus, to access drinking water, residents of Colonias either haul their drinking water to their lots, or drill shallow wells.⁴³

Wastewater is handled onsite in various ways including septic tanks, out-houses, or holes.⁴⁴ Although septic tanks would normally be considered an adequate means of dealing with sewage, Colonias often have septic tanks that do not meet health and construction codes because of insufficient drainage and storage.⁴⁵ In addition, the type of soil and the absence of storm water drainage can compromise the structural integrity of the septic tanks.⁴⁶ The effects of the structural inadequacies of the various forms of makeshift wastewater infra-

³⁹ See Angela J. Donelson & Adrian X. Esparza, *The Colonias Reader: Economy, Housing, and Public Health in U.S.-Mexico Border Colonias* 173 (2010); Dutton, *supra* note 4, at 23 (focusing on pesticide and lead exposure); Jo Rios & Pamela S. Meyer, *What Do Toilets Have to Do With It? Health, the Environment, and the Working Poor in Rural South Texas Colonias*, 4 Online J. Rural Res. & Pol'y 1, 13 (2009), available at <http://newprairiepress.org/cgi/viewcontent.cgi?article=1026&context=ojrrp>, archived at <http://perma.cc/4RWX-FWXX>.

⁴⁰ See U.S. Evtl. Prot. Agency, *US-Mexico Border XXI Program Framework Document VI3* (1996); Rios & Meyer, *supra* note 39, at 13.

⁴¹ See DONELSON & ESPARZA, *supra* note 39, at 173, 178; Rios & Meyer, *supra* note 39, at 3; Hanna, *supra* note 3, at 884.

⁴² See Rios & Meyer, *supra* note 39, at 6; Hanna, *supra* note 3, at 908. In order for residents to access services such as electricity and water treatment, the municipality must extend the service infrastructure to reach the residents by extending sewage pipes and electrical lines. See Hanna, *supra* note 3, at 908–09. Once those extensions are built, residents must also be able to connect the infrastructure components into their own homes or onto their properties, so they are able to connect their plumbing or electrical wiring to the newly available infrastructure. See *id.* The cost of construction on their own property has often been prohibitively expensive for many Colonia residents. See *id.* at 908.

⁴³ See US-Mexico Border XXI Program Framework Document, *supra* note 40, at VI4.

⁴⁴ See *id.*; Rios & Meyer, *supra* note 39, at 10.

⁴⁵ US-Mexico Border XXI Program Framework Document, *supra* note 40, at V14; Peter M. Ward, *Colonias and Public Policy in Texas and Mexico: Urbanization by Stealth* 143 (1999) (“[T]errain and occasional torrential rains leads to poor drainage and frequent flooding, causing septic tanks to fail and sewage to rise to the surface.”); Rios & Meyer, *supra* note 39, at 10–11.

⁴⁶ See US-MEXICO BORDER XXI PROGRAM FRAMEWORK DOCUMENT, *supra* note 40, at VI4; Rios & Meyer, *supra* note 39, at 6, 10–11 (finding eighty percent of the Colonia residents surveyed, “had septic tanks with a few holes.”). The soil found in the region can cause the septic tanks to shift, which in turn, can create open holes in the tank. See Rios & Meyer, *supra* note 39, at 10. The lack of storm water drainage allows excess rainwater to flood the septic tanks and backup indoor plumbing. See *id.* at 10–11.

structures often combine to contaminate the groundwater that serves as the primary water supply for the Colonia.⁴⁷

Trash disposal and pesticide exposure present additional environmental challenges to Colonias.⁴⁸ Residents keep trash on their lots for extended periods and rely on trash burning as their primary means of disposal.⁴⁹ Keeping trash on the premises for more than one week is considered to be a source of environmental pollution that contributes to a compromised air quality.⁵⁰ Colonias also face a heightened risk of inorganic environmental water and ground contamination from pesticide runoff because over fifty percent of Colonias are within a one-quarter mile radius of an agricultural field.⁵¹ Pesticide runoff derives from the excess pesticides that are released during aerial application, otherwise known as crop dusting.⁵² This runoff creates another source of drinking water contamination because pesticides can leach through the soil and into the groundwater.⁵³

The resounding lack of adequate environmental infrastructure makes the Colonias vulnerable to epidemic levels of disease.⁵⁴ Colonias residents are often at a heightened risk of contracting hepatitis A, shigellosis, typhoid, salmonellosis, dysentery, leprosy, cholera, lupus, leukemia, and breast cancer.⁵⁵ The prevalence of many of these infectious and communicable diseases is the direct result of poor drainage, pooling sewage, and water contamination.⁵⁶ Furthermore, all of these health problems are exacerbated by the lack of adequate

⁴⁷ See DONELSON & ESPARZA, *supra* note 39, at 178; US-MEXICO BORDER XXI PROGRAM FRAMEWORK DOCUMENT, *supra* note 40, at VI4; Rios & Meyer, *supra* note 39, at 13.

⁴⁸ See DUTTON, *supra* note 4, at 20; Rios & Meyer, *supra* note 39, at 11–12.

⁴⁹ See Rios & Meyer, *supra* note 39, at 7, 10.

⁵⁰ See *id.* at 7, 10. This conclusion was reached by Jo Rios and Pamela Meyer after conducting an ecological, empirical, and household level study of the Nueces County Colonias. See *id.* at 5–8 (explaining the research methodology used in the study).

⁵¹ See DUTTON, *supra* note 4, at 20.

⁵² See *id.* at 20; Gladwin Hill, *Federal Use of DDT Restricted Pending Results of 30-Day Study*, N.Y. TIMES, July 10, 1969, at 1. Aerial application is the process of spraying crops with chemicals by airplane. See Richard D. Chappuis, Jr., *The Flight of the Toxic Tort—Aerial Application of Insecticides and Herbicides: From Drift Liability to Toxic Tort*, 58 J. AIR L. & COM. 411, 415 (1992).

⁵³ See *Risks of Pesticide Use*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/oecaagct/ag101/pestrisk.html> (last updated June 27, 2012), archived at <http://perma.cc/F9WS-WTKB>. Almost ninety-five percent of the households in rural areas, including Colonias, use groundwater as their primary source of drinking water. *Id.*; see US-MEXICO BORDER XXI PROGRAM FRAMEWORK DOCUMENT, *supra* note 40, at VI4 (referencing specifically, the impact of pesticide runoff on Colonias).

⁵⁴ See Rios & Meyer, *supra* note 39, at 3; Hanna, *supra* note 3, at 884.

⁵⁵ See DONELSON & ESPARZA, *supra* note 39, at 178; Hanna, *supra* note 3, at 884.

⁵⁶ Hanna, *supra* note 3, at 884. One commentator noted that “[b]urning trash, cockroaches, vermin, and mold lead to high rates of asthma, rashes, and lice infestation.” Emily Ramshaw, *Conditions, Health Risks Sicken Colonias Resident*, TEX. TRIB. (July 10, 2011), <http://www.texastribune.org/2011/07/10/conditions-health-risks-sicken-colonias-residents/>, archived at <http://perma.cc/Y95M-VVCA>.

transportation and roads to connect Colonias residents to health care providers in the region.⁵⁷

C. The Federal and State Response to Colonias

Beginning in the late 1980s, the federal and state governments began to confront and check the proliferation of Colonias by passing land use regulations, bringing lawsuits against developers, and investing hundreds of millions of dollars into existing Colonias.⁵⁸ It is not particularly surprising that the federal government's response to the environmental and health concerns being raised by the Colonias began concurrently with an expansion of one of the primary reasons for the Colonias proliferation: trade relations with Mexico.⁵⁹ As one of the primary sources for the Colonias proliferation, expanded trade relations with Mexico brought with it increased U.S. governmental awareness of the environmental and health concerns.⁶⁰

Although these federal and state efforts have not completely stopped the incidence of new Colonias, they have effectively decelerated the proliferation and successfully rectified most, if not all of the infrastructure deficiencies in many Colonias.⁶¹ Nevertheless, over 350 Colonias continue to lack even the most basic environmental infrastructure such as access to a potable water supply, adequate sewage systems, and habitable, safe, and sanitary housing.⁶²

1. Federal Legislative Response

The federal government's response to the proliferation of, and pervasive poverty in, the Colonias has primarily come in the form of assistance for existing Colonias through executive agencies and international partnerships.⁶³ In order to ensure passage of the North American Free Trade Agreement, the United States and Mexico signed various side agreements addressing congressional concerns about the environmental impacts of increased trade in the bor-

⁵⁷ See DONELSON & ESPARZA, *supra* note 39, at 183; *Conditions, Health Risks Sicken Colonias Resident*, *supra* note 56.

⁵⁸ See *infra* notes 63–122 and accompanying text.

⁵⁹ See ROMERO, *supra* note 27, at 42; Hanna, *supra* note 3, at 897.

⁶⁰ See ROMERO, *supra* note 27, at 42; Hanna, *supra* note 3, at 897.

⁶¹ See Hanna, *supra* note 3, at 877–78; *Improvement Comes Up Short in South Texas Colonias*, *supra* note 5; *Colonias Prevention*, *supra* note 5.

⁶² See CHIPS: MONITORING COLONIAS ALONG THE UNITED STATES-MEXICO BORDER IN TEXAS, *supra* note 25, at 2; *Conditions, Health Risks Sicken Colonias Resident*, *supra* note 56.

⁶³ See FED. RESERVE BANK OF DALL., *supra* note 6, at 26–28; U.S. ENVTL. PROT. AGENCY, SUMMARY OF FEDERAL AND STATE FUNDING FOR COLONIA ASSISTANCE IN TEXAS 11, 14–15 (2010), available at <http://www.epa.gov/region06/water/beyondtranslation/2009/coloniasfunding.pdf>, archived at <http://perma.cc/L7TM-LUQ2>.

der regions.⁶⁴ One of the most notable agreements was the creation of the North American Development Bank (the “NAD Bank”).⁶⁵ The NAD Bank allocates grants and dispenses private loans to environmental infrastructure projects on the Texas-Mexico border.⁶⁶ By the end of 2012, the NAD Bank had allocated approximately \$2 billion in loans and grants to finance 171 projects in the United States and Mexico.⁶⁷ Several of these projects have addressed the lack of access to “potable water supply, wastewater treatment, [and] solid waste management” of numerous Colonias.⁶⁸

Although fraught with bureaucratic constraints, executive agency programs have also proven to be effective in supporting Colonias.⁶⁹ The first such program was the Community Development Block Grants (“CDBG”) program under the U.S. Department of Housing and Urban Development (HUD).⁷⁰ CDBG is an annual grant endowed to local and state governments.⁷¹ Section 916 of the National Affordable Housing Act of 1990 mandated that Texas, Arizona, California, and New Mexico set aside up to ten percent of their CDBG funds to improve living conditions for residents of the Colonias.⁷² Since the program’s inception, the government of Texas has chosen to go beyond HUD requirements and currently allocates twelve and a half percent of the state’s CDBG funds to Colonia projects that address housing conditions, water systems, and sewers.⁷³ Unfortunately, the CDBG funds that are set aside to improve living conditions in the Colonias are often less than the amount required to complete a project for even one of the 1800 Colonias in Texas.⁷⁴

⁶⁴ See Hanna, *supra* note 3, at 897. These agreements include the North American Agreement on Environmental Cooperation and the Behavior Energy and Climate Conference-NAD Bank Agreement. *Id.*

⁶⁵ See Hanna, *supra* note 3, at 903; Williams, *supra* note 20, 719–20.

⁶⁶ See SUMMARY OF FEDERAL AND STATE FUNDING FOR COLONIA ASSISTANCE IN TEXAS, *supra* note 63, at 11; Hanna, *supra* note 3, at 905.

⁶⁷ See N. AM. DEV. BANK, ANNUAL REPORT 2 (2012), available at <http://www.nadbank.org/pdfs/publications/2012AnnualReport.pdf>, archived at <http://perma.cc/G7HF-4ZQK>.

⁶⁸ Williams, *supra* note 20, at 718; see N. AM. DEV. BANK, *supra* note 67, at 9.

⁶⁹ *Improvement Comes Up Short in South Texas Colonias*, *supra* note 5, at A19A; see Jared Janes, *Federal Initiative to Target Poverty in Colonias*, MONITOR (June 17, 2012, 12:00 AM), <http://www.rurdev.usda.gov/SupportDocuments/rdArticle-TheMonitorFederalInitiative6-17-2012.pdf>, archived at <http://perma.cc/ZAB7-2FFN>.

⁷⁰ See State Community Development Block Grant: COLONIAS, *supra* note 19.

⁷¹ See SUMMARY OF FEDERAL AND STATE FUNDING FOR COLONIA ASSISTANCE IN TEXAS, *supra* note 63, at 11; *State Community Development Block Grant: COLONIAS*, *supra* note 19.

⁷² See National Affordable Housing Act of 1990, Pub. L. No. 104-204, § 916, 104 Stat. 4079, 4396 (1990).

⁷³ See STATE OF TEX. CONF. COMM., CONFERENCE COMMITTEE REPORT, H.B. 1, 80th Leg., at VII-15 (Tex. 2007), available at http://www.utb.edu/ba/budget/Documents/general_appropriation_act_yr_biennium.pdf, archived at <http://perma.cc/W3YD-BVVB>; TEX. LEGIS. BUDGET BD., COLONIAS PRIMER 1 (2009), available at http://www.lbb.state.tx.us/Other_Pubs/Colonias%20Primer.pdf, archived at <http://perma.cc/L8KV-TJPS>.

⁷⁴ See Williams, *supra* note 20, at 717–18.

Most recently, in 2012 the U.S. Department of Agriculture, in conjunction with HUD and the U.S. Department of the Treasury's Community Development Financial Institutions Fund, introduced the Border Capital Community Initiative ("BCCI"), which was designed to strengthen public-private partnerships and promote economic development in the Colonias.⁷⁵ The BCCI has become a critical economic development tool and has already taken steps to improve procedures for grant allocation.⁷⁶

2. Texas Legislative Response

The Texas Legislature has also implemented a number of state programs to supplement federal initiatives in the effort to remedy the conditions in existing Colonias and to prevent the proliferation of new Colonias.⁷⁷ Preventative legislation has been focused on closing the gap between county and municipal regulatory authority that allowed Colonias to proliferate in the first place.⁷⁸ The first legislation was passed in 1989, when the Texas Legislature created the Economically Distressed Areas Program ("EDAP").⁷⁹ Instead of delegating regulatory authority to the various county governments, the EDAP incentivized counties to acquire commitments from developers, known as the Model Subdivision Rules, in order to qualify for state funding for water and sewer infrastructure projects.⁸⁰ Ultimately, despite various rounds of bolstering amendments, the EDAP proved to be insufficient in preventing new Colonias because of lax county enforcement of the Model Subdivision Rules.⁸¹

⁷⁵ *Border Capital Community Initiative*, U.S. DEP'T OF AGRIC., <http://www.rurdev.usda.gov/BCCI.html> (last updated Dec. 11, 2013), *archived at* <http://perma.cc/CL22-9AL5>; see U.S. DEP'T OF AGRIC., MEMORANDUM OF UNDERSTANDING BETWEEN UNITED STATES DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT AND THE COMMUNITY DEVELOPMENT FINANCIAL INSTITUTIONS FUND, THE DEPARTMENT OF THE TREASURY AND THE UNITED STATES DEPARTMENT OF AGRICULTURE REGARDING COLLABORATIVE ACTIVITY IN UNDERSERVED RURAL AREAS 1 (2012), *available at* <http://www.rurdev.usda.gov/SupportDocuments/rdUSDA-HUD-CDFI-FUNDMOU2012.pdf>, *archived at* <http://perma.cc/Y842-4FGC>.

⁷⁶ *Border Capital Community Initiative*, *supra* note 75. Applicants that are eligible to participate in this initiative are community development lenders and investors that are either local rural non-profit organizations or federally recognized Native American tribes or consortiums of such groups. *Border Community Capital Initiative Frequently Asked Questions*, HUD.GOV (2012), http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/economicdevelopment/programs/rhed/bcci, *archived at* <http://perma.cc/VJ3C-6X5P>.

⁷⁷ See Colonias Prevention, *supra* note 5.

⁷⁸ See Larson, *supra* note 34, at 199; Hanna, *supra* note 3, at 915.

⁷⁹ See TEX. WATER CODE ANN. § 17.922 (West 2008); Larson, *supra* note 34, at 201.

⁸⁰ See Hanna, *supra* note 3, at 906–07.

⁸¹ See Hanna, *supra* note 3, at 906–07; *Historical Sketch of Texas Laws Related to Colonias Remediation and Prevention*, ATTORNEY GEN. OF TEX., <https://www.texasattorneygeneral.gov/consumer/border/history.shtml> (last updated Aug. 30, 2010), *archived at* <http://perma.cc/BHB3-57Z8> (describing amendments SB 1189 and HB 2079).

In 1995, the Texas Legislature took a logical step forward by passing House Bill 1001, which authorized counties to regulate subdivision platting.⁸² Through the subsequent enactment of Subchapter B to Chapter 232 of the Local Government Code, border counties are now required to impose basic land planning requirements that developers must satisfy.⁸³ Due to the limited nature of county regulatory authorities throughout Texas, however, developers have exploited numerous loopholes in the legislation.⁸⁴ For example, Subchapter B could only be applied to Colonias that were “occupied,” which allowed developers to sell plats in a subdivision that lacked the otherwise required infrastructure, as long as the subdivision was vacant.⁸⁵ The effect was to preclude Colonias residents from seeking relief once they realized the inadequacies of the infrastructure, because by then the developer had quite literally left town.⁸⁶

Over the next decade, the Texas Legislature focused its attention on closing the loopholes in House Bill 1001.⁸⁷ In 1999, the legislature extended the border counties regulatory reach from subdivisions located within five miles of a municipality’s border to subdivisions located anywhere within the county’s boundaries.⁸⁸ In 2001, Subchapter G of the Texas Water Code was enacted to mandate that developers notify buyers if and when there might be a delay in water and sewer services.⁸⁹ Failure to provide this notice allows buyers to recover all costs related to the purchase of the property, plus interest and attorney’s fees.⁹⁰ Additionally, in 2002, Section 5.066 of the Texas Property Code provided that Colonias residents with contract-for-deed arrangements would receive additional consumer protections to prevent foreclosure after a single late payment.⁹¹ Most recently, in 2001, border counties with populations over 150,000 were granted additional regulatory authority over subdivision platting,

⁸² See Hanna, *supra* note 3, at 915; Historical Sketch of Texas Laws Related to Colonias Remediation and Prevention, *supra* note 81.

⁸³ TEX. LOC. GOV’T CODE ANN. § 232.032 (West 2008); see Hanna, *supra* note 3, at 916–17; Historical Sketch of Texas Laws Related to Colonias Remediation and Prevention, *supra* note 81.

⁸⁴ See Hanna, *supra* note 3, at 917; Williams, *supra* note 20, at 713–14.

⁸⁵ See Williams, *supra* note 20, at 714.

⁸⁶ See *id.* Land developers would keep the Colonias vacant by selling plots of land, but not allowing the residents to move onto the property. See *id.* Residents were not permitted to move onto the property until all the units were sold. See *id.* This process permitted land developers to profit from the sale and avoid regulation because they would become unreachable once residents encountered the inadequate infrastructure. See *id.*

⁸⁷ See *id.*; Historical Sketch of Texas Laws Related to Colonias Remediation and Prevention, *supra* note 81.

⁸⁸ See TEX. LOC. GOV’T CODE ANN. § 232.022; Williams, *supra* note 20, at 715.

⁸⁹ TEX. WATER CODE ANN. § 13.257(d) (West 2008); see Williams, *supra* note 20, at 715.

⁹⁰ TEX. WATER CODE ANN. § 13.257(m); see Williams, *supra* note 20, at 715–16.

⁹¹ TEX. PROP. CODE ANN. § 5.066 (West 2012); see Williams, *supra* note 20, at 716.

such as the power to institute wider rights-of-way and to mandate minimum lot frontages.⁹²

Apart from closing the authority gap between county and municipal regulators, the Texas Legislature has also worked to remedy the maladies that plague the existing Colonias.⁹³ The state's remedial efforts have been divided among various agencies and programs.⁹⁴ These efforts provide a wide range of services that include monetary support, transportation, and financial advising.⁹⁵ The Texas Water Development Board for example, manages the most financially significant operations, which include the EDAP⁹⁶ and the Colonia Self-Help Program ("CSHP").⁹⁷ The CSHP funds infrastructure projects that connect Colonias to existing water provision and wastewater disposal services.⁹⁸

The Department of Housing and Community Affairs ("DHCA") manages the more localized support, which includes Colonia Self-Help Centers and the Contract for Deed Conversion Program ("CDCP").⁹⁹ The DHCA operates seven Self-Help Centers that provide technical assistance, housing resources, community development activities, outreach, and education to the Colonia residents.¹⁰⁰ One of the housing resources available at the Self-Help Center is the CDCP,¹⁰¹ which assists Colonia residents in converting their contract-for-deed into a traditional mortgage so that they may allocate capital towards rehabilitating their homes in accordance with federal housing standards.¹⁰²

3. Enforcement by the Texas Attorney General

As the Texas Legislature implemented stricter land use regulations for counties along the Texas-Mexico border, the Texas Attorney General ("AG") served as the primary enforcer.¹⁰³ Over the past twenty years, the Texas AG has filed dozens of lawsuits against Colonias developers and won millions of

⁹² See TEX. LOC. GOV'T CODE ANN. § 232.102; Historical Sketch of Texas Laws Related to Colonias Remediation and Prevention, *supra* note 81.

⁹³ See, e.g., FED. RESERVE BANK OF DALL., *supra* note 6, at 26; Tex. Legis. Budget Bd., *supra* note 73, at 1; Summary of Federal and State Funding for Colonia Assistance in Texas, *supra* note 63, at 14–15.

⁹⁴ See FED. RESERVE BANK OF DALL., *supra* note 6, at 26; TEX. LEGIS. BUDGET BD., *supra* note 73, at 1.

⁹⁵ See, e.g., TEX. LEGIS. BUDGET BD., *supra* note 73, at 1–2 (listing services provided by state agency programs, such as the Job Access and Reverse Commute Grant Program).

⁹⁶ See *infra* notes 107–10 and accompanying text.

⁹⁷ See TEX. LEGIS. BUDGET BD., *supra* note 73, at 1–2.

⁹⁸ See FED. RESERVE BANK OF DALL., *supra* note 6, at 18; see also SUMMARY OF FEDERAL AND STATE FUNDING FOR COLONIA ASSISTANCE IN TEXAS, *supra* note 63, at 13 (describing the CSHP's technical assistance including "housing, community development activities, infrastructure improvements, outreach and education.").

⁹⁹ TEX. LEGIS. BUDGET BD., *supra* note 73, at 6–7.

¹⁰⁰ *Id.* at 7.

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ See Hanna, *supra* note 3, at 911.

dollars in damages.¹⁰⁴ The lawsuits were part of the Colonia Enforcement Strike Force, a joint venture with the U.S. Environmental Protection Agency (EPA) to enforce strengthened county land-use regulations.¹⁰⁵ Although the Texas AG continues to maintain broad discretion to enjoin violators, budgetary constraints and limited enforcement allows many Colonia developers to avoid prosecution.¹⁰⁶

The adoption of the EDAP's Model Subdivision Rules brought with it the first round of lawsuits addressing failures to comply with the program's contractual commitments.¹⁰⁷ For example, in 1994 in *In re D & Realty, Inc.*, the Texas AG thwarted a developer's attempt to avoid liability for violations of subdivision regulations by initiating bankruptcy proceedings.¹⁰⁸ During the proceedings, the developer argued that Colonia residents owed him millions of dollars in payments under previously entered contracts for deed.¹⁰⁹ Due to the cause of action made available to the Texas AG under the Model Subdivision Rules however, the developer agreed, under substantial pressure, to a reorganization plan where he accepted a fraction of the purported debt in exchange for avoiding further prosecution.¹¹⁰

The second wave of lawsuits followed the implementation of Subchapter B to Chapter 232 of the Local Government Code.¹¹¹ At the request of both district and county attorneys, the Texas AG began prosecuting violations of Subchapter B.¹¹² In 1997 for example, the Texas AG brought lawsuits against developers in Hidalgo County for unfinished water and sewer services.¹¹³ Through subsequent settlements, the developers agreed to finance the construction of waste and septic systems.¹¹⁴ Similarly, in 2000, a Starr County developer was prosecuted for not building a required septic system or installing

¹⁰⁴ See Hanna, *supra* note 3, at 911; *The Forgotten Americans, Focus: Las Colonias*, PBS, <http://www.pbs.org/krlu/forgottenamericans/focus/howdevel.htm> (last visited Oct. 1, 2014), archived at <http://perma.cc/8DRM-7TWW>.

¹⁰⁵ See US-Mexico Border XXI Program Framework Document, *supra* note 40, at V12.

¹⁰⁶ See Hanna, *supra* note 3, at 913; Williams, *supra* note 20, at 715.

¹⁰⁷ See Hanna, *supra* note 3, at 913.

¹⁰⁸ See *In re D & A Realty, Inc.*, 179 B.R. 831, 837 (Bankr. S.D. Tex. 1994). After building a sewage treatment plant that not only failed to comply with the subdivision regulations, but also collapsed, the developer filed for bankruptcy. *Id.* at 832.

¹⁰⁹ *Id.* at 835.

¹¹⁰ See *id.*

¹¹¹ TEX. LOC. GOV'T CODE ANN. § 232.032 (West 2008); see DONELSON & ESPARZA, *supra* note 39, at 89–90, 109.

¹¹² See DONELSON & ESPARZA, *supra* note 39, at 89–90, 109; Historical Sketch of Texas Laws Related to Colonias Remediation and Prevention, *supra* note 81.

¹¹³ See Historical Sketch of Texas Laws Related to Colonias Remediation and Prevention, *supra* note 81.

¹¹⁴ See *id.*

adequate storm water drainage.¹¹⁵ The developer eventually agreed to rectify the infrastructure flaws and was required to pay the state \$47,000 in civil penalties and \$17,500 in attorney's fees.¹¹⁶ Most recently, the Texas AG was able to permanently enjoin a Cameron County developer who failed to provide water and wastewater services.¹¹⁷ The decision further imposed \$464,500 in civil penalties, mandated infrastructure improvements, and instituted a general prohibition against advertising the subdivision.¹¹⁸

Overall, these efforts by the state and federal officials represent an important step forward: governmental and judicial recognition of the deplorably impoverished conditions that hundreds of thousands of Colonias residents live in.¹¹⁹ Although these efforts have successfully addressed the concerns of many Colonia communities, substantial environmental and health concerns remain.¹²⁰ These concerns will not be fully addressed until elected officials become better informed and government programs receive additional revenue.¹²¹ In South Texas, local governments may now have that new source of revenue in the Eagle Ford Shale development.¹²²

II. EAGLE FORD SHALE

In 2008, Petrohawk Energy Company first discovered what would become the source of South Texas's unprecedented economic boom, the Eagle Ford Shale.¹²³ Named after a Texas town where shale outcrops "can be found in clay form on the earth's surface," the Eagle Ford Shale is a hydrocarbon

¹¹⁵ See KATHLEEN PICKERING ET AL., WELFARE REFORM IN PERSISTENT RURAL POVERTY: DREAMS, DISENCHANTMENTS, AND DIVERSITY 159 (2006); *Historical Sketch of Texas Laws Related to Colonias Remediation and Prevention*, *supra* note 81.

¹¹⁶ See PICKERING ET AL., *supra* note 115, at 159; *Historical Sketch of Texas Laws Related to Colonias Remediation and Prevention*, *supra* note 81.

¹¹⁷ See Aaron Nelsen, *Texas AG Obtains Injunction Against Cameron County Colonia Developer*, SAN ANTONIO EXPRESS NEWS (Aug. 7, 2013), <http://www.mysanantonio.com/news/local/article/Texas-AG-obtains-injunction-against-Cameron-4716134.php>, *archived at* <http://perma.cc/E6AT-FARA>.

¹¹⁸ See *id.*

¹¹⁹ See *supra* notes 63–118 and accompanying text.

¹²⁰ See Hanna, *supra* note 3, at 911; Conditions, Health Risks Sicken Colonias Resident, *supra* note 56.

¹²¹ See Hanna, *supra* note 3, at 908; *Improvement Comes Up Short in South Texas Colonias*, *supra* note 5. Uninformed elected officials often implement ineffective policies that are stifled by "turfism" and other "bureaucratic challenges." *Improvement Comes Up Short in South Texas Colonias*, *supra* note 5, at A19A. These concerns are compounded by funding allocations that can only address a fraction of the estimated costs of addressing all of the state's Colonias. See Hanna, *supra* note 3, at 908.

¹²² See Price, *supra* note 7; *Learn About Eagle Ford Shale*, S. TEX. ENERGY & ECON. ROUNDTABLE, <http://steer.com/learn-about-eagle-ford-shale/> (last visited Oct. 1, 2014), *archived at* <http://perma.cc/E4AP-FGUH>.

¹²³ *Eagle Ford Shale Information*, R.R. COMM'N OF TEX., <http://www.rrc.state.tx.us/oil-gas/major-oil-gas-formations/eagle-ford-shale/> (last updated Sept. 29, 2014), *archived at* <http://perma.cc/T82Y-P95Y>; see *Learn About Eagle Ford Shale*, *supra* note 122.

producing rock formation.¹²⁴ Through the use of hydraulic fracturing (“fracking”) and horizontal drilling, energy companies can access the shale’s extensive oil and gas reserves.¹²⁵ Drilling in Eagle Ford Shale currently extends across fourteen counties and is anticipated to continue to produce for at least another forty years.¹²⁶ These significant reserves make the Eagle Ford Shale one of the largest domestic oil discoveries in decades.¹²⁷ The Eagle Ford Shale has the potential to become the most active shale play in the world.¹²⁸ Although fracking is relatively new to South Texas, the Eagle Ford Shale represents just one chapter in the Lone Star State’s long history with fracking.¹²⁹

A. Fracking in Texas

Fracking is the high-pressure injection of millions of gallons of water, sand, and chemicals, through horizontally drilled wells, deep below the earth’s surface.¹³⁰ The pressurized mixture of water, sand, and chemicals creates cracks, known as fractures, in the rock layer of coal beds or shale formations.¹³¹ Natural gas or oil is then extracted from the coal and shale, through the fissures, which are held open by the sand particles in the pressurized mixture.¹³²

Despite the unresolved environmental problems that are occurring in areas where fracking is happening and that are becoming more severe, the drilling persists in Texas with widespread support.¹³³ Earthquakes have begun to occur in areas surrounding both the Eagle Ford Shale and the Barnett Shale.¹³⁴ Scien-

¹²⁴ See Learn About Eagle Ford Shale, *supra* note 122.

¹²⁵ Price, *supra* note 7; Learn About Eagle Ford Shale, *supra* note 122.

¹²⁶ See Learn About Eagle Ford Shale, *supra* note 122.

¹²⁷ *Id.*

¹²⁸ R.R. COMM’N OF TEX., EAGLE FORD SHALE TASK FORCE REPORT 2 (2013), available at http://www.rrc.state.tx.us/commissioners/porter/reports/Eagle_Ford_Task_Force_Report-0313.pdf, archived at <http://perma.cc/69M7-7N4B>.

¹²⁹ See Kate Galbraith, *Ready (or Not?) for a Great Coming Shale Boom*, N.Y. TIMES, Apr. 28, 2013, at A27, available at <http://www.nytimes.com/2013/04/28/us/time-for-texas-to-get-ready-for-the-shale-boom.html?pagewanted=all>, archived at <http://perma.cc/8VCC-JVH8>. In the 1980s, Mitchell Energy introduced fracking to Texas through wells on the Barnett Shale, located in the Fort Worth Basin. See *Barnett Shale Information*, R.R. COMM’N OF TEX., <http://www.rrc.state.tx.us/oil-gas/major-oil-gas-formations/barnett-shale-information/> (last updated Apr. 29, 2014), archived at <http://perma.cc/D3YP-RAC3>.

¹³⁰ Hannah Wiseman, *Untested Waters: The Rise of Hydraulic Fracturing in Oil and Gas Production and the Need to Revisit Regulation*, 20 FORDHAM ENVTL. L. REV. 115, 118 (2009); Mike Lee, *Parched Texans Impose Water-Use Limits for Fracking Gas Wells*, BLOOMBERG BUSINESSWEEK (Oct. 6, 2011), <http://www.businessweek.com/news/2011-10-06/parched-texans-impose-water-use-limits-for-fracking-gas-wells.html>, archived at <http://perma.cc/MFV2-SYWG>.

¹³¹ See Wiseman, *supra* note 130, at 118.

¹³² See *id.*

¹³³ See Russell Gold & Ana Campoy, *Study Shines Light on Tremors and Fracking in South Texas’ Eagle Ford Shale*, WALL ST. J., Dec. 6, 2011, at A12.

¹³⁴ See *How Oil and Gas Disposal Wells Can Cause Earthquakes*, STATEIMPACT, <http://stateimpact.npr.org/texas/tag/earthquake/> (last visited Oct. 8, 2014), archived at <http://perma.cc/GS4C-A448>. Disposal

tists have attributed this phenomenon to the use of disposal wells in fracking operations.¹³⁵ Despite the increasingly severe environmental problems, support for fracking is largely driven by the widespread economic prosperity the Eagle Ford Shale has created for cities that had previously been considered part of one of the most economically distressed areas in the nation.¹³⁶

The Texas Legislature and the Railroad Commission of Texas (the “Commission”), which oversees oil and gas drilling in the state, have taken a largely laissez-faire approach to the regulation of fracking.¹³⁷ In fact, some top state officials have publicly identified regulation as the biggest threat to the energy economy.¹³⁸ The Commission has stated that it will not consider any policy changes to address the earthquakes that might be linked to the standard industry practice of disposing fracking wastewater through deep underground injections.¹³⁹ With fracking thus left largely unregulated, earthquakes and other severe environmental problems will continue in the regions surrounding the Barnett Shale and the Eagle Ford Shale.¹⁴⁰

The impact of fracking operations on groundwater also remains largely unresolved.¹⁴¹ In fact, the only statewide regulation addressing fracking was enacted in 2012 when the Texas Legislature mandated oil and gas operators in the state disclose a full list of chemicals being used in the fracking process.¹⁴² As Texas suffers from an intensifying drought, fracking, which is a water intensive process, poses a substantial threat to many communities’ water supply.¹⁴³ Texas water code provisions currently prohibit permitting requirements for extracting groundwater for “drilling or exploration operations” for oil or gas wells, and yet, the water code permits such requirements for oil and gas “production.”¹⁴⁴ This distinction has become problematic when it is applied to

wells, located thousands of feet underground and encased in layers of concrete, are one of the final disposal mechanisms for used drilling fluid from the fracking process. *Id.*

¹³⁵ *Id.*

¹³⁶ See *id.*

¹³⁷ See *Coastal Oil & Gas Corp. v. Garza Energy Trust*, 268 S.W.3d 1, 17 (Tex. 2008) (“Though hydraulic fracturing has been common place in the oil and gas industry for over sixty years, neither the Legislature nor the Commission has ever seen fit to regulate it.”).

¹³⁸ See Fehling, *supra* note 1.

¹³⁹ See Terrence Henry, *As Texas Towns Shake, Regulators Sit Still*, STATEIMPACT (Dec. 6, 2013, 6:00 AM), <http://stateimpact.npr.org/texas/2013/12/06/as-north-texas-shakes-railroad-commission-sits-still/>, archived at <http://perma.cc/GAJ2-832S>.

¹⁴⁰ See Gold & Campoy, *supra* note 133, at A12; Rick Jervis, *Oil! New Texas Boom Spawns Riches, Headaches*, USA TODAY (Jan. 15, 2014, 9:37 PM), <http://www.usatoday.com/story/news/nation/2014/01/15/texas-oil-boom-fracking/4481977/>, archived at <http://perma.cc/6KEW-9BVD>.

¹⁴¹ See Kate Galbraith, *Fracking Groundwater Rules Reflect Legal Ambiguities*, TEX. TRIB. (Mar. 13, 2013), <http://www.texastribune.org/2013/03/13/fracking-groundwater-rules-reflect-legal-ambiguiti/>, archived at <http://perma.cc/U8XN-WJSM>.

¹⁴² See, e.g., 16 TEX. ADMIN. CODE § 3.29(c)(1)(A) (2012) (outlining disclosure requirements).

¹⁴³ See Lee, *supra* note 130.

¹⁴⁴ See TEX. WATER CODE ANN. § 36.117(a)(2) (West 2008).

fracking for two reasons.¹⁴⁵ First, “drilling or exploration” has traditionally referred to older drilling processes that require minimal groundwater use when compared to the millions of gallons of groundwater being used in fracking operations.¹⁴⁶ Second, because of the unique process associated with fracking, it is not clear whether fracking operations can be defined as either “drilling or exploration operations,” or “production.”¹⁴⁷

In August 2011 however, the municipality of Grand Prairie took advantage of this ambiguity in the law’s language and became the first municipality to ban the use of city water for fracking.¹⁴⁸ Such action by a municipal government exemplifies the swift and effective action that is possible by for incorporated community facing immediate environmental concerns.¹⁴⁹

B. Economic Scope of the Eagle Ford Shale

During its first five years of drilling operations, the Eagle Ford Shale emerged as an economic engine for Texas, and to some degree the nation.¹⁵⁰ Assessing the economic impact from a statewide prospective, the Eagle Ford Shale has created nearly 90,000 jobs and has already produced a total economic output that exceeds \$60 billion.¹⁵¹ On the county level, total sales tax revenues from the fourteen oil producing counties jumped over 42% from \$861 million in 2009 to over \$1.2 billion in 2011, and experts project those revenue streams to continue to increase.¹⁵² On the national level, the discovery and proliferation of the Eagle Ford Shale has placed the United States on course to become energy independent by 2020.¹⁵³

Bee County, located over the center of the Eagle Ford Shale outcrop, serves as an example of the economic impact.¹⁵⁴ Bee County’s economy and inhabitants are primarily concentrated in one municipality, Beeville.¹⁵⁵ Bee-

¹⁴⁵ See Fracking Groundwater Rules Reflect Legal Ambiguities, *supra* note 141.

¹⁴⁶ See *id.*

¹⁴⁷ See *id.*

¹⁴⁸ Lee, *supra* note 130.

¹⁴⁹ *Id.*

¹⁵⁰ See Blackmon, *supra* note 8.

¹⁵¹ See Economic Impact of the Eagle Ford Shale, *supra* note 8, at 14.

¹⁵² See Ctr. for Cmty. & Bus. Research, Univ. of Tex. at San Antonio Inst. for Econ. Dev., Eagle Ford Shale: Economic Impact for Counties with Active Drilling 12 (2012), available at <http://ccbr.iiedtexas.org/index.php/Impact-Reports/View-category.html?dir=DESC&limit=5&limitstart=20&order=name>, archived at <http://perma.cc/E22P-L8UQ>.

¹⁵³ See Blackmon, *supra* note 8.

¹⁵⁴ See Eagle Ford Shale: Economic Impact for Counties with Active Drilling, *supra* note 152, at 6.

¹⁵⁵ Compare Beeville (city), Texas, U.S. CENSUS BUREAU, <http://quickfacts.census.gov/qfd/states/48/4807192.html> (last updated July 8, 2014), archived at <http://perma.cc/ZVD2-TQD2> (listing 13,290 residents in the city), with Bee County, Texas, U.S. CENSUS BUREAU, <http://quickfacts.census.gov/qfd/states/48/48025.html> (last updated July 8, 2014), archived at <http://perma.cc/C9RC-LZ57> (listing 32,799 residents in the county).

ville is a relatively small municipality with a population of 13,101 primarily Hispanic residents.¹⁵⁶ Yet, in 2011, Bee County produced over \$96 million in economic output.¹⁵⁷ This output resulted in an almost 70% increase in sales and 22% growth in wages.¹⁵⁸ The economic impact occurred among various industries including, but not limited to, manufacturing, transportation, hospitality, and education.¹⁵⁹ Driving through any county with active drilling will reveal countless examples of new hotels, restaurants, and gasoline stations being built.¹⁶⁰ As a result of the rapid rate of economic development—in an otherwise economically distressed area—there may be an opportunity for municipalities to expand their share of the economic benefits that the Eagle Ford Shale has to offer.¹⁶¹

III. ANNEXATION IN TEXAS

Municipal annexation is the process of moving a municipality's borders to encompass previously unincorporated areas.¹⁶² The expansion of a municipality's borders leads to service and infrastructure improvements and extensions in various ways.¹⁶³ First, annexation provides the previously unincorporated area with access to existing municipal services.¹⁶⁴ Second, annexation triggers legal requirements on municipalities "to bring underserved areas up to municipal health and safety standards."¹⁶⁵ Third, residents of previously unincorporated areas are granted equal access to the same two levels of local government—municipal and county—that municipal residents are afforded.¹⁶⁶ The additional access to the municipal governments also means newly incorporated citizens are

¹⁵⁶ Beeville (city), Texas, *supra* note 155.

¹⁵⁷ See Eagle Ford Shale: Economic Impact for Counties with Active Drilling, *supra* note 152, at 30.

¹⁵⁸ See *id.* at 28–29.

¹⁵⁹ *Id.* at 29.

¹⁶⁰ See Robert W. Gilmer et al., *Oil Boom in Eagle Ford Shale Brings New Wealth to South Texas*, SOUTHWEST ECON. FED. RESERVE BANK OF DALL., 2nd Quarter, 2012, at 3, 6, available at <http://www.dallasfed.org/assets/documents/research/swe/2012/swe1202b.pdf>, archived at <http://perma.cc/93RE-U68K>.

¹⁶¹ See *infra* notes 239–316 and accompanying text.

¹⁶² See TEX. LOC. GOV'T CODE ANN. § 43.033(a) (West 2008).

¹⁶³ See Michelle Wilde Anderson, *Mapped Out of Local Democracy*, 62 STAN. L. REV. 931, 943 (2010); Judith Welch Wegner, *North Carolina's Annexation Wars: Whys, Wherefores, and What Next*, 91 N.C. L. REV. 165, 191 (2012).

¹⁶⁴ Anderson, *supra* note 163, at 943.

¹⁶⁵ *Id.*

¹⁶⁶ *Id.* Whereas a citizen residing in a municipality has access to both the municipal and county government, a citizen in an unincorporated area only has access to a county government. See *id.*; see, e.g., *Island Annexations*, FRESNO LOCAL AGENCY FORMATION COMM'N, <http://www.fresnolafco.org/Island%20Annex.asp> (last visited Oct. 1, 2014), archived at <http://perma.cc/ZX47-WDUF>. In Texas, where county governments are traditionally weaker than municipalities, the discrepancy in representation can result in significant disparity in applicable land use regulations as compared to those that citizens in municipalities enjoy. See Williams, *supra* note 20, at 713.

in closer proximity to government services, and increases the governmental responsiveness that they receive from their political representation.¹⁶⁷ Fourth, annexation “leaves historically rooted communities intact” by moving borders instead of homes to relocate a neighborhood from one jurisdiction to another.¹⁶⁸

A. Annexation Procedure in Texas

Across the United States, each state varies on the authority and procedures required in the annexation process.¹⁶⁹ Authority for annexation in Texas is derived from Subchapter B of Chapter 43 of the Local Government Code.¹⁷⁰ Per subchapter B, many municipalities have the authority to annex without obtaining consent from the annexed landowners.¹⁷¹ The extent of land that can be annexed is, however, limited to a municipality’s extraterritorial jurisdiction,¹⁷² which is the unincorporated area that is “contiguous to the corporate boundaries of the municipality[.]”¹⁷³ The size of that area varies and is largely dependent on the size of the municipality.¹⁷⁴ For example, a municipality with fewer than 5000 inhabitants can only annex unincorporated areas that fall within one-half mile of its corporate boundaries, whereas a municipality with 100,000 or more inhabitants can annex unincorporated areas that fall within five miles of its boundaries.¹⁷⁵

Before annexation can take place, the municipality must meet numerous statutory requirements.¹⁷⁶ First, it must prepare an Annexation Plan that specifically identifies the land that will be annexed.¹⁷⁷ Second, it must prepare an inventory of services provided and ensure those services will be extended to the annexed areas within four and a half years of annexation.¹⁷⁸ Third, the municipality must provide written notice to all property owners and service providers in the proposed annexed area within ninety days of the adoption of the annexation

¹⁶⁷ See Anderson, *supra* note 163, at 944.

¹⁶⁸ See *id.*

¹⁶⁹ See *id.* at 951.

¹⁷⁰ See TEX. LOC. GOV’T CODE ANN. § 43.033 (West 2008).

¹⁷¹ See *id.*

¹⁷² *Id.* § 43.051 (“A municipality may annex area only in its extraterritorial jurisdiction unless the municipality owns the area.”).

¹⁷³ *Id.* § 42.021.

¹⁷⁴ See *id.*

¹⁷⁵ *Id.* § 42.021(a)(1), (a)(5).

¹⁷⁶ See *id.* § 43.052.

¹⁷⁷ See *id.* § 43.052(c). The plan further establishes that the annexation must take place over the course of a month following the third anniversary of the plan’s adoption. *Id.*

¹⁷⁸ See *id.* § 43.056. Examples of municipal services included within the inventory of services are: (1) police protection; (2) fire protection; (3) emergency medical services; (4) solid waste collection; (5) wastewater facilities; (6) roads; (7) public parks; and (8) other publicly owned facilities. See *id.* § 43.056(b).

plan.¹⁷⁹ Fourth, the municipality must conduct two public hearings at which interested parties can voice their support or opposition to the proposed annexation.¹⁸⁰ The hearings must be conducted no later than ninety days after the inventory of services is prepared.¹⁸¹ Additionally, a hearing may be required in the area of proposed annexation if twenty residents of the unincorporated area file a written protest within ten days of the notice publication.¹⁸²

Apart from general statutory annexation procedures, the state legislature has also implemented a Colonia-specific provision.¹⁸³ Colonias may continue to apply for state-funded programs for up to five years after being annexed by a municipality.¹⁸⁴ This provision was developed to alleviate the financial burden municipalities undertake when annexing Colonias.¹⁸⁵

B. Legal Challenges to Annexation in Texas

Although annexation might provide numerous benefits for citizens in the annexed territory, it has been the subject of numerous public and private legal challenges.¹⁸⁶ Legal challenges to annexation address the municipality's procedure or its authority to annex.¹⁸⁷ As discussed above, the state legislature has imposed various procedural requirements on municipalities.¹⁸⁸ When a procedural fault is present—such as an inadequate service plan or a lack of notice—the Texas Attorney General (“AG”) may bring an action under *quo warranto* proceedings against the municipality to void the annexation.¹⁸⁹ Standing to bring a *quo warranto* legal challenge is limited to the Texas AG, to ensure municipal officials possess sufficient autonomy to perform their duties.¹⁹⁰ Limited standing further prevents conflicting results that might be reached in subsequent private suits.¹⁹¹

¹⁷⁹ See *id.* § 43.052(f).

¹⁸⁰ See *id.* § 43.0561(a).

¹⁸¹ See *id.*

¹⁸² See *id.* § 43.0561(b).

¹⁸³ See *id.* § 43.907.

¹⁸⁴ See *id.*

¹⁸⁵ See H.B. 1982, 1999 Leg., 76th Reg. Sess. (Tex. 1999).

¹⁸⁶ See *Alexander Oil Co. v. City of Seguin*, 825 S.W.2d 434, 435 (Tex. 1991); *Sunchase Capital Grp., Inc. v. City of Crandall*, 69 S.W.3d 594, 595 (Tex. App. 2001); *Larkins v. City of Denison*, 683 S.W.2d 754, 755 (Tex. App. 1984).

¹⁸⁷ See *City of Houston v. Guthrie*, 332 S.W.3d 578, 596 (Tex. App. 2009).

¹⁸⁸ See *supra* notes 169–85 and accompanying text.

¹⁸⁹ *Alexander Oil*, 825 S.W.2d at 436, 438 (challenges to annexations should be brought by *quo warranto* proceedings); see also *Bexar Metro. Water Dist. v. City of Bulverde*, 156 S.W.3d 79, 86 (Tex. App. 2004) (*quo warranto* proceedings, which are brought by the Texas AG, challenge the authority of public officials to engage in certain practices specifically enumerated by statute).

¹⁹⁰ See *Bexar Metro.*, 156 S.W.3d at 86.

¹⁹¹ See *Alexander Oil*, 825 S.W.2d at 437 (“By requiring that the State bring such a proceeding, we avoid the specter of numerous successive suits by private parties attacking the validity of annexations.”).

In addition to *quo warranto* proceedings, private parties may bring legal challenges against annexation under limited circumstances.¹⁹² A private party must establish that the annexation ordinance exceeded the authority delegated to the municipality by the state legislature.¹⁹³ Examples of ordinances that exceed the municipality's authority include annexation beyond the statutory limits, annexation into the corporate limits of another municipality, or annexation boundaries that reach beyond the description in the ordinance.¹⁹⁴ Texas courts have been unwilling to extend standing to challenges against a municipality's motives for annexation and imposition of regulations.¹⁹⁵

In *Larkins v. City of Denison*, the court rejected a landowner's challenge to annexation based on alleged arbitrary and capricious motivations.¹⁹⁶ The court reasoned that there is no provision for judicial inquiry into a municipality's motive for annexation and that the determination of municipal boundaries is a political question beyond the scope of judicial review.¹⁹⁷ The court extended this reasoning in *Alexander Oil Co. v. Seguin*, where it rejected a landowner's claim that the municipality's improper intention of levying ad valorem taxes¹⁹⁸ voided the annexation.¹⁹⁹ A private annexation challenge based on regulations was most recently raised in the 2001 Texas Court of Appeals decision in *Sunchase Capital Group, Inc. v. Crandall*.²⁰⁰ The court declined to consider a hotel developer's claim that the imposition of more costly municipal land use regulations would warrant a proper private challenge to annexation, holding that it lacked jurisdiction over the claim brought.²⁰¹

C. Annexation in Practice—Imperial, California

Texas municipalities have traditionally been reluctant to annex undeveloped rural settlements like Colonias because of their negligible property value and exorbitantly costly remedial infrastructure needs.²⁰² The few instances of municipalities overcoming this reluctance have been linked to the availability of funding for infrastructure improvements, a limited effect of annexation on the racial demographics of annexing cities, institutional arrangements to sup-

¹⁹² See *Sunchase Capital*, 69 S.W.3d at 596.

¹⁹³ See *Larkins*, 683 S.W.2d at 756.

¹⁹⁴ See *Alexander Oil*, 825 S.W.2d at 438.

¹⁹⁵ See, e.g., *Alexander Oil*, 825 S.W.2d at 436 n.3; *Larkins*, 683 S.W.2d at 756.

¹⁹⁶ 683 S.W.2d at 756.

¹⁹⁷ *Id.*

¹⁹⁸ BLACK'S LAW DICTIONARY 1810 (9th ed. 2009) (“[a] tax imposed proportionally on the value of something . . . rather than on its quantity or some other measure.”).

¹⁹⁹ 825 S.W.2d at 436 n.3.

²⁰⁰ 69 S.W.3d at 595.

²⁰¹ *Id.* at 598.

²⁰² See FED. RESERVE BANK OF DALL., *supra* note 6, at 3.

port annexation, and active pressure by citizen groups.²⁰³ The annexation of Colonias in Imperial County, California exemplifies many of these traits.²⁰⁴ Although the prevalence of Colonias in California is not nearly as widespread as in Texas, the Imperial Colonias serve as a prime example of the universal policy concerns that are raised by municipal officials, regardless of the state, during the annexation process.²⁰⁵

In the early 1990s, Imperial County decided to tackle the growing problem of Colonias by convincing the county's largest municipalities, Calexico, El Centro, and the City of Imperial to annex the adjacent Colonias, C.N. Perry, Kloke, Eastside, El Dorado, and Southside, respectively.²⁰⁶ County officials were focused on implementing a "smart growth policy" to sustain the regional industries and to avoid the potentially prohibitive costs of bringing the infrastructure up to date all at once.²⁰⁷ This process would take place over several years and after numerous back-and-forth negotiations between the municipalities and the county.²⁰⁸

The primary issue that arose involved what land to annex.²⁰⁹ Initially, Calexico only wanted to annex property to attract retail development that would generate lucrative property and sales taxes.²¹⁰ Calexico officials feared the costs associated with the annexation of C.N. Perry and Kloke would be prohibitively high.²¹¹ The county overcame this concern, however, by ensuring Calexico that it would receive a portion of the U.S. Department of Housing and Urban Development's (HUD) Community Development Block Grants ("CDBG") funding to lower costs.²¹² The financial support from the CDBG program and the added value from retail development convinced Calexico to annex both C.N. Perry and Kloke.²¹³ El Centro and the City of Imperial followed a similar path, agreeing to annex adjacent Colonias after a commitment to receive financial support from the CDBG program and lucrative retail developments of its own.²¹⁴

²⁰³ See Vinit Mukhija & David R. Mason, *Reluctant Cities, Colonias and Municipal Underbunding in the U.S.: Can Cities Be Convinced to Annex Poor Enclaves?*, 50 *URB. STUD.* 2959, 2960 (2013).

²⁰⁴ *See id.* at 2965–66.

²⁰⁵ *See id.*

²⁰⁶ *See* DONELSON & ESPARZA, *supra* note 39, at 223–24; Mukhija & Mason, *supra* note 203, at 2967.

²⁰⁷ *See* Mukhija & Mason, *supra* note 203, at 2697.

²⁰⁸ *See* DONELSON & ESPARZA, *supra* note 39, at 223–24; Mukhija & Mason, *supra* note 203, at 2968.

²⁰⁹ *See* Mukhija & Mason, *supra* note 203, at 2967–68.

²¹⁰ *See id.*

²¹¹ *See id.* at 2968.

²¹² *See id.*; *supra* notes 63–102 and accompanying text.

²¹³ *See* Mukhija & Mason, *supra* note 203, at 2968.

²¹⁴ *See id.*

Another result of municipal annexations that frequently arises is that successful annexation proposals often create coalitions of diverse interests that include environmental and social justice groups.²¹⁵ Environmentalists in particular, have mobilized around annexation's ability to address the pollution and public health issues caused by the Colonias' inadequate infrastructure.²¹⁶

D. Differences in County and Municipal Authority

Although annexation provides numerous benefits to residents of unincorporated areas such as Colonias, it also brings a source of authority that municipalities can exercise over the newly annexed area that was nonexistent when the area was unincorporated.²¹⁷ The new municipal authority, which is inherently a limitation on county authority, is exhibited in the ability to tax and regulate and is based on Texas's strong political tradition of preserving private property rights above all else.²¹⁸

Local entities in Texas are vested with the broad authority to impose sales and use taxes and property taxes.²¹⁹ Authority to levy property taxes is granted exclusively to the local jurisdictions of counties, municipalities, and school districts.²²⁰ School districts are authorized to levy the largest percentage of property taxes at a rate not exceeding \$1.17 per \$100 of property value.²²¹ A county and municipality combined may impose a property tax not exceeding \$0.80 per \$100 of property value.²²² Sales tax is imposed at both the state and the local level.²²³ The state sales tax rate of 6.26% is applied to all retail transactions.²²⁴ Counties and municipalities are also authorized to impose a combined additional 2% sales tax on a local jurisdiction.²²⁵

The difference in taxation authority between the county and municipality arises in implementation.²²⁶ A county may only impose a sales tax after reduc-

²¹⁵ See Anderson, *supra* note 163, at 943; Dave Owen, *Mapping, Modeling, and the Fragmentation of Environmental Law*, 2013 UTAH L. REV. 219, 221 (2013).

²¹⁶ See Anderson, *supra* note 163, at 943; Owen, *supra* note 215, at 221.

²¹⁷ See CAPITAL AREA COUNCIL OF GOVERNMENTS, COUNTY LAND USE AUTHORITY IN TEXAS 2 (2009), available at http://data.capcog.org/Information_Clearinghouse/presentations/2009-11-03%20County%20Land%20Use%20Report%20-%20final%20for%20Publication.pdf, archived at <http://perma.cc/UP5Z-57S3>.

²¹⁸ See Larson, *supra* note 34, at 197–98.

²¹⁹ TLC RESEARCH DIV., OVERVIEW OF LOCAL TAXES IN TEXAS 1 (2002), available at <http://www.tlc.state.tx.us/pubspol/localtaxes.pdf>, archived at <http://perma.cc/8SFA-FKPL>.

²²⁰ SUSAN COMBS, TEX. COMPTROLLER OF PUB. ACCOUNTS, YOUR MONEY AND THE TAXING FACTS 3 (2012), http://www.texas Transparency.org/Special_Features/Reports/pdf/TexasItsYourMoney-TaxingFacts.pdf, archived at <http://perma.cc/N5B3-LTJG>; TLC RESEARCH DIV., *supra* note 219, at 1.

²²¹ See COMBS, *supra* note 220, at 3.

²²² See *id.*

²²³ TLC RESEARCH DIV., *supra* note 219, at 2.

²²⁴ COMBS, *supra* note 220, at 3; TLC RESEARCH DIV., *supra* note 219, at 2.

²²⁵ COMBS, *supra* note 220, at 3; TLC RESEARCH DIV., *supra* note 219, at 2.

²²⁶ See COMBS, *supra* note 220, at 3.

ing its property tax rate.²²⁷ A municipality, however, has no such limitation.²²⁸ Therefore, the only way to reach the maximum property tax of \$0.80 per \$100 of property value and sales tax of 2% is for municipalities to impose the majority of the tax.²²⁹

There is also a discrepancy in regulatory authority between counties and municipalities.²³⁰ Municipalities possess general ordinance-making authority to implement a wide array of land use regulations.²³¹ In contrast, counties are limited to authority expressly granted to them by the Texas Legislature.²³² This leaves large areas within the state's borders under minimal regulatory control.²³³ Zoning authority exemplifies this discrepancy in authority.²³⁴ As of 2009, Texas was the only state in the country that prohibited general zoning authority for counties.²³⁵ Although counties along the Texas-Mexico border have received land use authority, the vast majority of counties are prohibited from utilizing long-range planning controls.²³⁶ A prohibition of zoning also leads to counties lacking a comprehensive plan setting forth a city's vision for land use in the future, and from imposing impact fees.²³⁷ Despite changes in the law in Texas, municipalities continue to be able to exercise a greater level authority over land use and taxation than counties, which should provide municipalities with a greater incentive to annex unincorporated towns.²³⁸

²²⁷ *Id.*

²²⁸ *See id.* Municipal property and sales taxes, unlike county taxes, are not related, and therefore permit municipalities to tax at a greater total rate. *See id.*

²²⁹ *See id.*

²³⁰ *See* Larson, *supra* note 34, at 198.

²³¹ *See* TEX. LOC. GOV'T CODE ANN. § 51.012 (West 2008).

²³² *See* CAPITAL AREA COUNCIL OF GOVERNMENTS, *supra* note 217, at 1; Larson, *supra* note 34, at 198–99.

²³³ *See* CAPITAL AREA COUNCIL OF GOVERNMENTS, *supra* note 217, at 1; *see also* Larson, *supra* note 34, at 199 (“Colonia developers carved out a market niche by taking advantage of a regulatory vacuum that permitted real estate development and shelter construction free from any meaningful zoning, growth, environmental, infrastructure, building, or safety controls.”).

²³⁴ *See* Capital Area Council of Governments, *supra* note 217, at 1.

²³⁵ *See id.*

²³⁶ *See* Larson, *supra* note 34, at 199.

²³⁷ *See* CAPITAL AREA COUNCIL OF GOVERNMENTS, *supra* note 217, at 1. Impact fees provide a “legitimate means of assigning development costs” by imposing fees on land developers to cover the various public costs associated with developing a new piece of land. *See* Ronald H. Rosenberg, *The Changing Culture of American Land Use Regulation: Paying for Growth with Impact Fees*, 59 SMU L. REV. 177, 182 (2006).

²³⁸ *See* CAPITAL AREA COUNCIL OF GOVERNMENTS, *supra* note 217, at 1; Larson, *supra* note 34, at 199 (indicating changes in land use authority for border counties).

IV. ANNEXING COLONIAS: INCREASING REVENUES AND BUILDING INFRASTRUCTURE

The substantial financial costs that will be necessary to develop the much-needed infrastructure in the Colonias continue to be one of the greatest barriers to rectifying the impoverished conditions that continue to exist.²³⁹ As previously discussed, the developers who are largely responsible for the lack of infrastructure have often disappeared or have avoided or circumvented legal liability.²⁴⁰ This places the burden of financing infrastructure development primarily on the state government.²⁴¹ Nearby municipalities are often incapable of annexing the Colonias because the cost of developing infrastructure is too great of a burden.²⁴² In response to this issue, both the Texas state government and the federal government have established programs to provide financial assistance.²⁴³ The problem, however, is that these programs have often been insufficiently funded to adequately address the problem.²⁴⁴

Fortunately, the hydraulic fracturing (“fracking”) boom in South Texas has reframed the conversation about the financial costs associated with annexation of Colonias into nearby municipalities.²⁴⁵ Because of the financial boon brought by fracking operations—through direct and secondary revenue streams—the prospect of annexation and the necessary infrastructure improvement costs that come with it, is no longer purely a drain on municipal resources.²⁴⁶ Further, because municipalities have the broad authority to generate revenue through the collection of property and sales taxes, annexation now carries with it the potential to grow municipal revenue.²⁴⁷ By collecting property and sales taxes on the various businesses being built in unincorporated areas—such as the Colonias—across the region as a part of the Eagle Ford Shale economic boom, municipalities now have financially significant reasons to seriously consider annexation.²⁴⁸

²³⁹ See FED. RESERVE BANK OF DALL., *supra* note 6, at 4; Improvement Comes Up Short in South Texas Colonias, *supra* note 5.

²⁴⁰ Williams, *supra* note 20, at 717; *see supra* note 86 and accompanying text.

²⁴¹ *See* Williams, *supra* note 20, at 717.

²⁴² *See* FED. RESERVE BANK OF DALL., *supra* note 6, at 3; Mukhija & Mason, *supra* note 203, at 2690.

²⁴³ Fed. Reserve Bank of Dall., *supra* note 6, at 26.

²⁴⁴ *See* Hanna, *supra* note 3, at 904–05, 908; *supra* notes 69–74 and accompanying text.

²⁴⁵ *See infra* notes 292–302 and accompanying text.

²⁴⁶ *See* Foster, *supra* note 6, at 165.

²⁴⁷ *See infra* notes 292–302 and accompanying text.

²⁴⁸ *See infra* notes 292–302 and accompanying text.

A. The Process and the Benefits of Annexation

Currently, fracking operators in fourteen counties are actively drilling in the Eagle Ford Shale.²⁴⁹ Collectively, seven of those counties contain almost two hundred Colonias.²⁵⁰ The counties—Bee, Dimmit, Frio, La Salle, Maverick, Webb, and Zavala—also contain municipalities that are in close enough proximity to one or multiple Colonias to have extra territorial jurisdiction over them.²⁵¹ As such, qualifying Colonias are within the scope of land that these municipalities are statutorily permitted to annex.²⁵²

Beeville, Texas, a small municipality located in the heart of Bee County,²⁵³ is a prime example of why there is such great potential for annexations to occur across all seven counties.²⁵⁴ Beeville's primarily Hispanic demographic is largely representative of the municipalities located in the seven counties.²⁵⁵ With a population under 25,000, its extraterritorial reach for annexation purposes is limited to one mile from its corporate boundary,²⁵⁶ and yet, within that radius lays three Colonias: Blue Berry Hill to the west, Old Airport Road to the northwest, and Old Houston Road to the northeast.²⁵⁷ Beeville's population and proximity to these adjacent Colonias and the Eagle Ford Shale thus make it ripe for annexation.²⁵⁸

To be eligible for annexation, Beeville must first prepare an Annexation Plan that specifically identifies what land it will annex.²⁵⁹ Ideally, the plan would not be limited to land encompassing the Colonias.²⁶⁰ Instead, it should include all of the land within Beeville's extraterritorial jurisdiction.²⁶¹ It is such

²⁴⁹ See Eagle Ford Shale: Economic Impact for Counties with Active Drilling, *supra* note 152, at 14.

²⁵⁰ Compare Colonias Database, ATTORNEY GEN. OF TEX., https://maps.oag.state.tx.us/colgeog/colgeog_online.html# (last updated Aug. 30, 2013), archived at <http://perma.cc/6VCA-QDGJ> (mapping all counties where Colonias exist), with EAGLE FORD SHALE: ECONOMIC IMPACT FOR COUNTIES WITH ACTIVE DRILLING, *supra* note 152, at 6 (mapping counties in the Eagle Ford Shale with active drilling operations).

²⁵¹ See Colonias Database, *supra* note 250.

²⁵² See *infra* notes 253–55 and accompanying text.

²⁵³ See Eagle Ford Shale: Economic Impact for Counties with Active Drilling, *supra* note 152, at 27.

²⁵⁴ See *id.* at 27; *infra* note 255.

²⁵⁵ Compare Beeville (city), Texas, *supra* note 154 (almost seventy two percent of the population is Hispanic or Latino), with Demographics, WINDOW ON STATE GOV'T, <http://www.window.state.tx.us/specialrpt/tif/southtexas/demographics.html> (last visited Oct. 1, 2014), archived at <http://perma.cc/S96U-Y8BW> (“[eighty-one] percent of the South Texas population was of Hispanic ethnicity . . .”).

²⁵⁶ TEX. LOC. GOV'T CODE ANN. § 41.021 (West 2008); Beeville (city), Texas, *supra* note 154 (2012 population estimate of 13,134).

²⁵⁷ See Colonias Database, *supra* note 250 (access the map by selecting “Find Colonia” hyperlink and then selecting “Bee” from “county” dropdown menu).

²⁵⁸ See Colonias Database, *supra* note 244; Beeville (city), Texas, *supra* note 154.

²⁵⁹ See TEX. LOC. GOV'T CODE ANN. § 43.052(c); *supra* notes 182–88 and accompanying text.

²⁶⁰ See Eagle Ford Shale: Economic Impact for Counties with Active Drilling, *supra* note 152, at 8.

²⁶¹ See *id.*; ECONOMIC IMPACT OF THE EAGLE FORD SHALE, *supra* note 8, at 19. Annexing more property in an active-drilling county improves the probability that a newly discovered “sweet spot” for

pervasive inclusion of the entirety of Beeville's extraterritorial reach that would transform the financial impact of annexation into a net positive economic result.²⁶²

As a result of its proximity to the Eagle Ford Shale development, the land within Beeville's extraterritorial jurisdiction, whether developed or raw, has become very attractive to potential developers.²⁶³ The Eagle Ford Shale has not only created a demand for drilling operations, but has also for a vast amount of support industries that are necessary to sustain the fracking operations and the communities that develop around them.²⁶⁴ Bee County, for example, currently has new and growing industry development in the hospitality sector, the health care sector, and the transportation sector.²⁶⁵ Therefore, even if drilling does not occur on the annexed land, support industry operations will likely be developed and provide tax revenues that can be used to support infrastructure additions.²⁶⁶

After preparing its Annexation Plan, Beeville would prepare an Inventory and Implementation Plan for the extension of its municipal services into the annexed communities, including of course, the Colonias.²⁶⁷ Common municipal services include a police department, a fire department, an emergency medical service, solid waste collection services, wastewater treatment facilities, and road administration.²⁶⁸ The implementation of this infrastructure could address the vast majority of the environmental problems plaguing the Colonias.²⁶⁹ By extending proper wastewater treatment facilities for example, the Colonias would no longer have to rely on inadequate wastewater systems such as septic tanks, outhouses, or holes.²⁷⁰ Further, providing solid waste collection would eliminate trash burning and the air quality degrading practice of leaving trash on the premises for over a week.²⁷¹ Finally, the combination of the extension of emergency medical services and the proper paving and maintaining of

drilling or a support industry's operations will be subject to municipal taxes. *See* EAGLE FORD SHALE: ECONOMIC IMPACT FOR COUNTIES WITH ACTIVE DRILLING, *supra* note 152, at 8; ECONOMIC IMPACT OF THE EAGLE FORD SHALE, *supra* note 8, at 19.

²⁶² *See* Price, *supra* note 7 (referring to the immense amount of economic development that surrounds fracking operations). Because fracking operations generally go part and parcel with economic development, it would behoove Beeville to annex as much land as possible that is being used for lucrative purposes. *See id.*

²⁶³ *See* Economic Impact of the Eagle Ford Shale, *supra* note 8, at 19.

²⁶⁴ *See id.*

²⁶⁵ *See* Eagle Ford Shale: Economic Impact for Counties with Active Drilling, *supra* note 152, at 28.

²⁶⁶ *See* ECONOMIC IMPACT OF THE EAGLE FORD SHALE, *supra* note 8, at 38 ("Bee County is attracting dozens of oil-related businesses locating offices, shops, and equipment yards.")

²⁶⁷ *See* TEX. LOC. GOV'T CODE ANN. § 43.056 (West 2008).

²⁶⁸ *Id.*

²⁶⁹ *See* FED. RESERVE BANK OF DALL., *supra* note 6, at 26; Rios & Meyer, *supra* note 39, at 11–12.

²⁷⁰ *See* FED. RESERVE BANK OF DALL., *supra* note 6, at 8.

²⁷¹ *See* Rios & Meyer, *supra* note 39, at 11–12.

roads would improve Colonias' resident's awareness and access to proper health care.²⁷²

The two final procedural steps of annexation are primarily related to public notice and the receipt of public feedback.²⁷³ Beeville would have to give written notice to all property owners and service providers in the areas slated for annexation at least ninety days before proceeding.²⁷⁴ The residents of Blue Berry Hill, Old Airport Road, and Old Houston Road would thus be required to receive notice.²⁷⁵ Further, any businesses currently operating in the proposed area of annexation would also have to receive notice.²⁷⁶ Beeville would then be required to hold two public hearings, which must occur before the municipality releases the full list of municipal services to be extended to the proposed area of annexation.²⁷⁷ These hearings would give Colonia residents and any affected businesses the opportunity to voice support or opposition to the proposed annexation.²⁷⁸

Once Beeville has completed the process of preparing for annexation, and the annexation is completed, it would be able to begin to exercise its expanded municipal regulatory authority to prohibit access to municipal water supplies by fracking operations, which, as previously stated, require an estimated three to five million of gallons of water, per well, to operate.²⁷⁹ In a state suffering from severe drought, such extreme water use poses a significant challenge to municipalities that struggle to maintain adequate water levels to meet the demands of their populations.²⁸⁰ Furthermore, as previously discussed, ambiguities in Texas state law enable fracking operators to generally access water without limitation or regulation.²⁸¹

In order to better protect its water supply, Beeville and other similar municipalities might follow Grand Prairie's decision to ban the use of municipal city water for fracking operations.²⁸² Such a municipal regulation would assist Beeville's residents—hopefully including Colonias residents—to maintain adequate

²⁷² See Conditions, Health Risks Sicken Colonias Resident, *supra* note 56.

²⁷³ See TEX. LOC. GOV'T CODE ANN. § 43.0561 (West 2008).

²⁷⁴ See *id.*

²⁷⁵ See *id.* §§ 41.021, 43.0561; *Colonias Database*, *supra* note 244.

²⁷⁶ Tex. Loc. Gov't Code Ann. § 43.0561.

²⁷⁷ *Id.*

²⁷⁸ See *id.*

²⁷⁹ See Mark Koba, *Severe Water Shortage in West Fails to Stop Fracking at Gas Wells*, NBC NEWS (June 10, 2014, 11:56 AM), <http://www.nbcnews.com/business/energy/severe-water-shortage-west-fails-stop-fracking-gas-wells-n127416>, archived at <http://perma.cc/7C7U-WJD8>; Lee, *supra* note 130; see also *Fracking Groundwater Rules Reflect Legal Ambiguities*, *supra* note 141; Wiseman, *supra* note 130, at 118. Beeville currently possesses municipal authority to impose water regulations within its existing municipal boundaries. See TEX. LOC. GOV'T CODE ANN. § 51.012 (West 2008).

²⁸⁰ See *id.*

²⁸¹ See *Fracking Groundwater Rules Reflect Legal Ambiguities*, *supra* note 141 (describing the legal ambiguities and resulting lack of oversight).

²⁸² See Lee, *supra* note 130.

clean water supplies by precluding the need to compete with drilling operations for their own water, and further, it would mitigate the risk of groundwater contamination that is commonly associated with fracking.²⁸³

As in Grand Prairie, this regulation would not necessarily deter fracking operations and the ensuing economic benefits.²⁸⁴ Rather, developers have shown a willingness to comply with regulatory requirements by trucking water into the region and installing portable distilling plants, which recycle water.²⁸⁵ This response indicates that new regulation will not inhibit oil and gas production, but rather, incentivize developers to seek out alternative sources of water to continue their lucrative operations.²⁸⁶

Overall, annexation and the environmental benefits that come with it, which will ultimately become feasible because of the substantial economic output provided by fracking operations,²⁸⁷ stands to provide numerous environmental benefits to the newly annexed territory.²⁸⁸ Groundwater contamination from the Colonias' existing sub-standard water distribution and treatment systems would be eliminated and replaced with infrastructure up to municipal code.²⁸⁹ Air pollution caused by the Colonias' existing trash disposal practices would be greatly reduced.²⁹⁰ Further, developers would be incentivized to recycle water used for fracking, because water access would become more expensive as a result of the municipal regulation on city water discussed above.²⁹¹

B. Sources of Revenue

In addition to protecting their water, annexation would enable municipalities to generate greater revenue to offset the costs of infrastructure development in the Colonias.²⁹² The first and most substantial source of additional revenue would be the imposition of municipal taxes on the recently annexed

²⁸³ See *id.*

²⁸⁴ See *id.*

²⁸⁵ See *id.*

²⁸⁶ See *id.*

²⁸⁷ See *infra* notes 292–302 and accompanying text. It should be noted that environmental concerns about fracking in the Eagle Ford Shale remain. See Henry, *supra* note, 139. This Note does not set out to minimize those concerns, but rather to argue that the environmental impact of fracking in the Eagle Ford Shale is capable of indirectly positive benefits. See *supra* notes 129–43, 267–72 and accompanying text.

²⁸⁸ See FED. RESERVE BANK OF DALL., *supra* note 6, at 8; Wiseman, *supra* note 130, at 118; Lee, *supra* note 130.

²⁸⁹ See TEX. LOC. GOV'T CODE ANN. § 43.056 (West 2008); FED. RESERVE BANK OF DALL., *supra* note 6, at 8.

²⁹⁰ See TEX. LOC. GOV'T CODE ANN. § 43.056; Rios & Meyer, *supra* note 39, at 11–12.

²⁹¹ See Fracking Groundwater Rules Reflect Legal Ambiguities, *supra* note 141.

²⁹² See TEX. LOC. GOV'T CODE ANN. § 43.907 (providing access to federal grants); EAGLE FORD SHALE: ECONOMIC IMPACT FOR COUNTIES WITH ACTIVE DRILLING, *supra* note 152, at 28 (highlighting sales tax growth in Bee County derived from the economic output created by the Eagle Ford Shale).

areas.²⁹³ Although any tax revenue generated from the Colonias would be minimal, the real value would come from tax revenue generated from business owners in the rest of the extraterritorial jurisdiction that are either engaged in drilling operations or support industries for the Eagle Ford Shale development.²⁹⁴ Counties have experienced an influx of economic output estimated at over \$19 billion as a direct result of the Eagle Ford Shale.²⁹⁵ Through annexation, municipalities would be able to increase tax revenue generated from that economic output by imposing the higher tax rate that is unavailable to counties.²⁹⁶ Further, the value of properties assessed for determining the amount of property taxes owed includes the value derived from mineral production, which includes oil and gas.²⁹⁷ Any property in the newly annexed area engaged in active drilling would therefore prove to be especially lucrative.²⁹⁸

The other significant source of revenue would come from state and federal programs designed to remedy the substandard infrastructural problems that exist in the Colonias.²⁹⁹ As previously discussed, municipalities in California made arrangements with state officials to receive financial support from the U.S. Department of Housing and Urban Development's (HUD) Community Development Block Grants ("CDBG") fund after annexing Colonias within its extraterritorial jurisdiction.³⁰⁰ The Texas Office of Rural Community Affairs ("TORCA") is equipped to make similar commitments to Beeville and other municipalities that seek annexation.³⁰¹ Municipalities might also seek funding from the state's Economically Distressed Areas Program ("EDAP") and utilize Colonia Self-Help centers to help facilitate the process of annexation for the Colonias residents.³⁰²

C. Potential Legal Challenges by the Industry

Although most Colonia residents would likely be supportive of Beeville's annexation, other affected landowners—namely any Eagle Ford Shale related

²⁹³ See Eagle Ford Shale: Economic Impact for Counties with Active Drilling, *supra* note 152, at 28.

²⁹⁴ See *id.*

²⁹⁵ See *id.* at 6.

²⁹⁶ See COMBS, *supra* note 220, at 3.

²⁹⁷ See *id.*

²⁹⁸ See *id.*

²⁹⁹ National Affordable Housing Act of 1990, Pub. L. No. 104-204, § 916, 104 Stat. 4079, 4396 (1990); TEX. LOC. GOV'T CODE ANN. § 43.907 (West 2008); see TEX. LEGIS. BUDGET BD., *supra* note 73, at 6–7 (explaining the legislative reasoning underpinning the passage of relevant code sections).

³⁰⁰ See *supra* notes 206–14 and accompanying text.

³⁰¹ See TEX. LEGIS. BUDGET BD., *supra* note 73, at 6–7; Mukhija & Mason, *supra* note 203, at 2690. Further, the TORCA would be aided by the ability of the Colonias to apply for federal funding for up to five years after annexation. TEX. LOC. GOV'T CODE ANN. § 43.907. Beeville and municipalities like it could therefore receive federal financial assistance from the CDBG for up to five years. See *id.*; TEX. LEGIS. BUDGET BD., *supra* note 73, at 6–7; Mukhija & Mason, *supra* note 203, at 2690.

³⁰² See TEX. LEGIS. BUDGET BD., *supra* note 73, at 6–7 (describing the available sources of support).

businesses—might be reluctant to welcome municipal annexation.³⁰³ For businesses, annexation translates into more taxes.³⁰⁴ As previously discussed, both counties and municipalities are capable of levying an additional sales tax of 2% and property taxes of \$0.80 per \$100.³⁰⁵ Only municipalities however, are capable of imposing the full 2% in sales tax without reducing the \$0.80 per \$100 in property tax.³⁰⁶ Therefore, any current and future businesses operating in the annexed area would be subject to a higher tax rate.³⁰⁷ These additional taxes can be expected to trigger opposition by industry players at all stages of the annexation process, including a possible legal challenge.³⁰⁸

As long as Beeville complies with all the procedural requirements discussed above,³⁰⁹ a procedural challenge by the Texas Attorney General would not be viable.³¹⁰ Business owners would only be left to challenge the municipality's authority.³¹¹ The only potential grounds for such a challenge would be an opposition to the increase in taxes.³¹² Texas courts have made clear, however, that this reason is insufficient to grant standing to a private party's challenge to annexation.³¹³ The municipality's motivation for annexation is purely a political question that is not intended for judicial review.³¹⁴ Additionally, the Texas Legislature has not written a provision allowing for judicial inquiry into a municipality's motivation for annexation.³¹⁵ Therefore, even when the desire to levy taxes on current and future businesses provides one of the motivations to annex, as the case would be with Beeville, the municipality is free to do so.³¹⁶

CONCLUSION

Annexation of full extraterritorial jurisdictions by the municipalities in Texas that are experiencing an economic boom from fracking in the Eagle Ford

³⁰³ See, e.g., *Alexander Oil Co. v. City of Seguin*, 825 S.W.2d 434, 437 (Tex. 1991); *Sunchase Capital Grp., Inc. v. City of Crandall*, 69 S.W.3d 594, 595 (Tex. App. 2001).

³⁰⁴ See *supra* notes 162–302 and accompanying text.

³⁰⁵ COMBS, *supra* note 220, at 3.

³⁰⁶ See *id.*

³⁰⁷ See *id.*

³⁰⁸ See, e.g., *Alexander Oil*, 825 S.W.2d at 437; *Sunchase Capital*, 69 S.W.3d at 595.

³⁰⁹ See *supra* notes 249–302 and accompanying text.

³¹⁰ See *Alexander Oil*, 825 S.W.2d at 437.

³¹¹ See *Sunchase Capital*, 69 S.W.3d at 596.

³¹² See *Alexander Oil*, 825 S.W.2d at 437; *Sunchase Capital*, 69 S.W.3d at 595.

³¹³ *Larkins v. City of Denison*, 683 S.W.2d 754, 756 (Tex. App. 1984); see *Alexander Oil*, 825 S.W.2d at 437; *Sunchase Capital*, 69 S.W.3d at 597.

³¹⁴ *Larkins*, 683 S.W.2d at 756; see *Alexander Oil*, 825 S.W.2d at 437 (reaffirming the reasoning applied in *Larkins*).

³¹⁵ *Larkins*, 683 S.W.2d at 756; see *Alexander Oil*, 825 S.W.2d at 437.

³¹⁶ See *Alexander Oil*, 825 S.W.2d at 437; *Sunchase Capital*, 69 S.W.3d at 597; *Larkins*, 683 S.W.2d at 756.

Shale presents a unique opportunity for the state of Texas to both address the environmental challenges in the impoverished South Texas border communities called Colonias and to increase municipal revenues. Municipalities would implement the much-needed infrastructure into the Colonias and directly address the main environmental challenges. The implementation of modern sewage and water treatment has the potential to substantially reduce the groundwater contamination created by inadequate septic tanks and other forms of makeshift sewage. Further, providing access to solid waste collection could drastically eliminate the harmful air pollutants associated with stagnant waste and trash burning.

In addition to the environmental benefits, municipalities would also be able to grow their sales tax and property tax revenues generated from the Eagle Ford Shale by expanding the boundaries of land that is subject to taxation. Further, the traditional financial burdens to the municipalities of annexing Colonias would be offset by the additional tax revenue and earmarked funds from state and federal program grants. Annexation is not only environmentally responsible and now economically sound, but also legally supportable and defensible. The Texas courts have consistently declined to consider claims of wrongful municipal intent to impose taxes in annexation suits for clear lack of standing. Although annexation is not the sole answer to the problems that plague the Colonias, and further will not provide relief for all Colonias, it does provide a solution that directly addresses many Colonias' central concerns, without increasing reliance on already over-extended state and federal programs.