Thursday, May 13, 2021 Subcommittee on Environment and Climate Change Committee on Energy and Commerce "The CLEAN Future Act: Superfund Proposals to Advance Cleanups, Equity, and Climate Resilience"

Testimony of Amy Catherine Dinn, J.D. Managing Attorney Environmental Justice Team, Equitable Development Initiative Lone Star Legal Aid

Good Morning.

My name is Amy Catherine Dinn. I am the Managing Attorney for the Environmental Justice Team at Lone Star Legal Aid, which is part of the firm's Equitable Development Initiative. Lone Star Legal Aid is a 501(c)(3) nonprofit law firm focused on advocacy on behalf of low-income and underserved populations. Lone Star Legal Aid serves the millions of people at 125% of federal poverty guidelines that reside in 72 counties in the eastern and Gulf Coast regions of Texas, and also 4 counties of southwest Arkansas. Lone Star Legal Aid focuses its resources on maintaining, enhancing, and protecting income and economic stability; preserving housing; improving outcomes for children; establishing and sustaining family safety and stability, health and wellbeing; and assisting populations with special vulnerabilities, such as those who have disabilities, or who are elderly, homeless, or have limited English language skills.

For the past 4 years, I have assisted low-income communities in Lone Star Legal Aid's 72-county service area in Texas along the Gulf Coast of Texas and Eastern Texas to fight environmental injustices in their area. Based in Houston, Texas, our Environmental Justice Team has worked to address disparities in these communities which are particularly vulnerable to pollution resulting from climate change and extreme weather events due to the lack of zoning in Houston and nearby Pasadena and the historical siting of the facilities that comprise the area's significant petrochemical industry in low-income areas and communities of color.

The Environmental Justice Team of Lone Star Legal Aid, totaling five attorneys (Rodrigo Cantú, Caroline Crow, Heejin Hwang. Chase Porter and myself) and two paralegals (Samantha Salas and Sal Giovanni Solis), thanks you for the opportunity to speak today regarding the Superfund Proposals to Advance Cleanups, Equity and Climate Resilience in the proposed CLEAN Future Act (the "Proposed Act"). Specifically, Sections 631 and 636 of the CLEAN Future Act contain important provisions to environmental justice communities in Lone Star Legal Aid's service area.

• Section 631 of the Proposed Act would expand liability under CERCLA (Comprehensive Environmental Response Compensation and Liability Act) for events related to climate change and require financial responsibility for facilities consistent with the degree and duration of risk associated with the impacts of climate change and extreme weather on those facilities, including releases of hazardous substances caused by climate change and extreme weather.

• Section 636 of the Proposed Act would require the U.S. Environmental Protection Agency (U.S. EPA) to prioritize sites on the National Priorities List that are vulnerable to climate change and require any response action to be completed within 10 years. These provisions offer protections to environmental justice communities in ensuring legacy contamination in floodplains and subject to extreme weather events are prioritized for remediation and that the facilities have appropriate financial assurances to guard against the known risks posed by climate change and extreme weather events.

In 2017, Hurricane Harvey, which dropped a record 60" of rain over five days, served as a wakeup call for the Texas Gulf Coast and the nation as the region struggled with unprecedented contamination that filled the floodwaters, directly impacting the health of many low income communities in Lone Star Legal Aid's service area. For example:

- In Channelview/ Highlands, the protective cap at the San Jacinto River Waste Pits Superfund Site was breached. Sampling after the floods of Hurricane Harvey showed dioxin/ furan levels ranging from 383 ng/kg TEQ to 43,000 ng/kg TEQ along the surface of the northwest part of the waste pits.¹
- In the Manchester community near the Houston Ship Channel, residents suffered exposure exceeding the lifetime cancer risk from polycyclic aromatic hydrocarbons (PAHs), which can attach themselves to floodwaters.²
- In Port Arthur, a wastewater facility operated by one of the largest chemical product producers in North America was responsible for the single biggest wastewater spill during Hurricane Harvey, releasing more than 100 million gallons in Jefferson County.³

The frequency of heavy rainfall events in the Greater Houston area appears to be increasing. Between 1981 and 2000, the odds of a rainfall event of more than 20 inches increased by one percent, and this frequency is expected to grow by 18 percent between 2018 and 2100.⁴ The reality of climate change and extreme weather events puts these environmental communities continually at risk for increased exposures to pollution not only from CERCLA sites but also other sites where contamination is present, such as Brownfields and other legacy contamination being remediated under federal cleanup statutes such as the Resource Conservation and Recovery Act ("RCRA").

¹ U.S. Environmental Protection Agency, Record of Decision, San Jacinto River Waste Pits (October 2017), https://semspub.epa.gov/work/06/100003945.pdf

² Texas A&M University. "Pollutant levels after Hurricane Harvey exceeded lifetime cancer risk in some areas: Researchers analyze how flooding from Harvey increased exposure to harmful chemicals in the Manchester neighborhood of Houston." ScienceDaily. <u>www.sciencedaily.com/releases/2021/03/210324113348.htm</u> (accessed May 11, 2021).

³ Port Arthur plant had largest wastewater spill in Texas after Harvey, Alex Stuckey, HOUSTON CHRONICLE (Nov. 21. 2021), <u>https://www.houstonchronicle.com/news/houston-texas/houston/article/Port-Arthur-plant-had-largest-wastewater-spill-in-12375679.php</u>

⁴ Texas A&M University. "Pollutant levels after Hurricane Harvey exceeded lifetime cancer risk in some areas: Researchers analyze how flooding from Harvey increased exposure to harmful chemicals in the Manchester neighborhood of Houston." ScienceDaily. <u>www.sciencedaily.com/releases/2021/03/210324113348.htm</u> (accessed May 11, 2021).

Identified below are the 33 superfund sites in Lone Star Legal Aid's service area. As shown in the chart, twenty seven of these sites have some identified risk associated with climate change or extreme weather events based on the U.S. Government Accountability Office ("GAO") analysis of data from the U.S. EPA, Federal Emergency Management Agency, National Oceanic Atmospheric Administration and the U.S. Forest Service.⁵

<u>Site Name</u>	City	<u>County</u>	Identified Risks	Site EPA ID
Rockwool Industries Inc.	Bell County	Bell	highest flood hazard	TXD066379645
Koppers Co. Inc (Texarkana Plant)	Texarkana	Bowie	highest flood hazard	TXD980623904
Texarkana Wood Preserving Co.	Texarkana	Bowie	highest flood hazard	TXD008056152
Gulfco Marine Maintenance	Freeport	Brazoria	 high wildfire hazard potential a minimum intensity (Category 1) hurricane flooding at high tide with no additional sea level rise 	TXD055144539
Malone Service Company, Inc.	Texas City	Galveston	 a minimum intensity (Category 1) hurricane flooding at high tide with no additional sea level rise 	TXD980864789
Motco, Inc.	La Marque	Galveston	 a minimum intensity (Category 1) hurricane flooding at 3 ft. of sea level rise 	TXD980629851
Tex-Tin Corp.	Texas City	Galveston	• a minimum intensity (Category 1) hurricane	TXD062113329
Garland Creosoting	Longview	Gregg	high wildfire hazard potential	TXD007330053

⁵ Superfund: EPA Should Take Additional Actions to Manage Risks from Climate Change, GAO-20-73, Published: Oct 18, 2019. Publicly Released: Nov 18, 2019.

<u>Site Name</u>	<u>City</u>	<u>County</u>	Identified Risks	Site EPA ID
Dixie Oil Processors	Friendswood	Harris	 a maximum intensity (Category 4 or 5) hurricane highest flood hazard 	TXD089793046
French, LTD	Crosby	Harris	 a minimum intensity (Category 1) hurricane highest flood hazard 	TXD980514814
Geneva Industries/ Fuhmann Energy	Houston	Harris	highest flood hazard	TXD980748453
Highlands Acid Pit	Highlands	Harris	 a minimum intensity (Category 1) hurricane highest flood hazard flooding at high tide with no additional sea level rise 	TXD980514996
Many Diversified Interests, Inc.	Houston	Harris	• No hazard identified (includes unknown)	TXD008083404
North Cavalcade Street	Houston	Harris	• a maximum intensity (Category 4 or 5) hurricane	TXD980873343
Patrick Bayou	Deer Park	Harris	 a minimum intensity (Category 1) hurricane highest flood hazard flooding at high tide with no additional sea level rise 	TX0000605329
San Jacinto River Waste Pits	Channelview/ Highlands	Harris	 a minimum intensity (Category 1) hurricane highest flood hazard flooding at high tide with no additional sea level rise 	TXN000606611
Sikes Disposal Pits	Crosby	Harris	 a minimum intensity (Category 1) hurricane highest flood hazard 	TXD980513956

<u>Site Name</u>	City	County	Identified Risks	Site EPA ID
			• flooding at 8 ft. of sea level rise	
Sol Lynn/ Industrial Transformers	Houston	Harris	• No hazard identified (includes unknown)	TXD980873327
South Cavalcade Street	Houston	Harris	• No hazard identified (includes unknown)	TXD980810386
US Oil Recovery	Pasadena	Harris	 a minimum intensity (Category 1) hurricane highest flood hazard flooding at high tide with no additional sea level rise 	TXN000607093
Crystal Chemical Co.	Houston	Harris	highest flood hazard	TXD990707010
Jones Road Ground Water Plume	Houston	Harris	• No hazard identified (includes unknown)	TXN000605460
Stewco, Inc.	Waskom	Harrison	highest flood hazard	TXD055337281
Hart Creosoting Company	Jasper	Jasper	highest flood hazard	TXD050299577
Jasper Creosoting Company Inc.	Jasper	Jasper	high wildfire hazard potentialhighest flood hazard	TXD008096240
Star Lake Canal	Port Neches	Jefferson	 high wildfire hazard potential a minimum intensity (Category 1) hurricane flooding at 3 ft. of sea level rise 	TX0001414341
State Marine of Port Arthur	Port Arthur	Jefferson	• a minimum intensity (Category 1) hurricane	TXD099801102

Site Name	City	County	Identified Risks	Site EPA ID
			• flooding at high tide with no additional sea level rise	
Petro- Chemical Systems, Inc. (Turtle Bayou)	Liberty County	Liberty	• No hazard identified (includes unknown)	TXD980873350
United Creosoting Co.	Conroe	Montgomery	highest flood hazard	TXD980745574
Conroe Creosoting Co.	Conroe	Montgomery	• highest flood hazard	TXD008091951
Bailey Waste Disposal	Bridge City	Orange	 high wildfire hazard potential a minimum intensity (Category 1) hurricane flooding at high tide with no additional sea level rise 	TXD980864649
Triangle Chemical Co.	Bridge City	Orange	 a minimum intensity (Category 1) hurricane flooding at high tide with no additional sea level rise 	TXD055143705
Sheridan Disposal Services	Hempstead	Waller	highest flood hazard	TXD062132147

For the purposes of this testimony, we would like to highlight two particular superfund sites in Lone Star Legal Aid's service area that have focused on the environmental justice communities nearby and the ongoing risk of contamination due to climate change and extreme weather events posed by these sites.

1. SAN JACINTO RIVER WASTE PITS

The San Jacinto River Waste Pits site (the "SJRWP") has been listed as a superfund site since 2008 after it was referred to the EPA in April 2005 by the Texas Parks and Wildlife Department ("TPWD") for evaluation under the Hazardous Ranking System. The site, approximately 14 acres in size and consisting of impoundments and surrounding terrain, was used in the 1960s as a

disposal area for paper mill waste, leading to contamination. The toxicity of the San Jacinto Riverespecially the area surrounding the site-is well documented. Polychlorinated dibenzo-p-dioxins and polychlorinated debenzofurans are the primary contaminants of concern at the site and in the surrounding environment, with dioxins having been found in concentrations as high as 41,300 parts per trillion in soil and sediment samples collected from the disposal site on the tract of land and river sediments near the tract. Dioxin has been found in high concentrations up and downstream from the site because of tidal influences. A study by the City of Houston of the San Jacinto River from the early 1990s (which included sampling of sediment, fish and crab from areas just northeast of the site) indicated extremely high levels of furans and dioxins-levels which were, incidentally, amongst the highest for these contaminants in the entire Houston Ship Channel.

The homes of residents living near the San Jacinto Waste Pits have flooded several times over the past decades. After Hurricane Harvey, residents began to wonder if the flood waters carried with them dioxin and other toxins that originated from the San Jacinto River Waste Pits, a superfund site that received pulp and paper mill waste in the mid-1960s before being promptly abandoned. Rediscovered in 2005, an armored cap was constructed over the impoundments in 2011 to act as a temporary solution while the U.S. EPA considered the alternatives for the SJRWP that would best protect human health and the environment: removal of the waste or permanent containment beneath a reinforced armored cap. In October 2017, the EPA announced that it favored the solution supported by the vast majority of community residents. The U.S. EPA plans to remove for disposal at least 212,000 cubic yards of dioxin contaminated material from the San Jacinto River. As the U.S. EPA has commented, "The plan provides certainty to people living near the site by permanently addressing risk posed by the contamination." While the U.S. EPA continues to work towards a design that can address the challenges posed by this site situated in the San Jacinto River, the community is hopeful that a solution is now in progress to address this serious contamination.

Residents can recall swimming in the San Jacinto River years ago as well as eating fish and crabs caught from it and its estuaries, including from very near the site. It was not until they began to see signs warning them that it is not safe to consume fish from the river that many became concerned. If the fish are not safe for eating, what other risks might exist? According to the National Institute of Environmental Health Sciences, "The dioxin TCDD, or Mutagen: Talking Glossary of Genetic Terms, is a known cancer-causing agent, and other DLCs are known to cause cancer in laboratory animals. Additionally, dioxin exposure has been linked to a number of other diseases, including type 2 diabetes, ischemic heart disease, and an acne-like skin disease called chloracne, a hallmark of dioxin exposure. Dioxins can cause developmental problems in children, lead to reproductive and infertility problems in adults, result in miscarriages, damage the immune system, and interfere with hormones."

One of the major lessons learned from the SJRWP is to ensure that there is increased transparency regarding communications between federal agencies who are operating in the same area as a superfund site like the SJRWP. Communities are often frustrated to learn that the agencies are not coordinating with each other when considering the permitting of new facilities in the same immediate area of a superfund site like the SJRWP, which because of its location in the San Jacinto River, is subject to threats from climate change and extreme weather events, but also operations of other industrial users of the river, such as barge fleets. During Hurricane Harvey and other recent weather events, there have been multiple instances of barges breaking loose during storms and

threatening bridges and other infrastructure in the area. The U.S. Army Corps of Engineers, which is responsible for approving permits for new barge docks on this river, has not taken into consideration the public's concerns with placing a barge facility so near a known CERCLA site. In this circumstance, not only the footprint of the CERCLA site, but also the presence of "hotspots" near the SJRWP raised public concerns. Additionally, much of the surrounding river bottom had not been placed through the same rigorous contamination detection and testing regime as the CERCLA site itself. Thus, plans for future development in areas around CERCLA sites also need to take into account the threats of climate change and extreme weather events and the potential risks posed by other facilities operating in the area during such events.

The GAO rates the SJRWP at risk of the impacts from climate change and extreme weather events such as the "highest flood hazard, a minimum intensity (Category 1) hurricane, and flooding at high tide with no additional sea level rise."⁶ Given the contaminants at issue and the known risks from flooding and hurricanes, the community applauds the U.S. EPA's current prioritization of the SJRWP and wants to see the work outlined in the Record of Decision continue until the contaminants are removed from harm's way.

2. FRENCH LIMITED SUPERFUND SITE

French Limited Superfund site ("French Limited") is a 55 acre site located in Crosby, Texas. Before French Limited was added to the National Priorities List in 1983, for 23 years, from 1950-1973, this French Limited was used for sand mining and industrial waste storage. During that time from 1966-1971, the site was also used as a dumping ground for petrochemical companies, which resulted in a 7.3 acre lagoon of hazardous waste. Ultimately, in 1973, the Texas Commission on Environmental Quality ("TCEQ") revoked the Site's permits. To date, the French Limited is still not ready for reuse or redevelopment.⁷

The U.S. EPA performed some affirmative removal activities in 1981, 1982, 1983, and 1989, but, for the most part, French Limited is a heavily contaminated site that has been left to naturally attenuate—rather than the EPA employing affirmative remediation strategies. Site remedies were selected in the 1988 Record of Decision (ROD), and the chosen long term remedies included: treating and extracting contaminated groundwater, the excavation and treatment of contaminated soil, the excavation and treatment of contaminated sludge, stabilizing harmful remaining residues and monitoring the groundwater. For three years from 1992-1995, the contaminated groundwater at the site was affirmatively treated.⁸

In 2007, the EPA determined that if the agency let the groundwater at the Site naturally attenuate, then that process would take over 100 years. So, in 2014, the EPA amended the 1988 ROD with a Proposed Plan (Plan). That Plan included a re-evaluation of the ground water remedy selected in

⁶ Superfund: EPA Should Take Additional Actions to Manage Risks from Climate Change, GAO-20-73, Published: Oct 18, 2019. Publicly Released: Nov 18, 2019.

⁷ French Limited site history can be found on the EPA's website, at U.S. EPA SUPERFUND SITE FRENCH LIMITED CLEANUP ACTIVITIES, available at:

https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.cleanup&id=0602498

⁸ French Limited site cleanup history can be found on the EPA's website, at U.S. EPA SUPERFUND SITE FRENCH LIMITED CLEANUP ACTIVITIES, available at:

https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.cleanup&id=0602498

1988. The Proposed Plan did not include any changes to the soil or sludge remedy selected in 1988 because these remedies were already implemented. Additionally, the Plan included (1) containing the groundwater contamination plumes; (2) preventing exposure to contaminated groundwater; and (3) installing additional monitoring wells to conduct short term and long term monitoring of the plume. The EPA and the TCEQ asked for public input in 2014, and received 40 letters from the public requesting to extend the comment period. The comment period was extended, but, ultimately, the EPA and the TCEQ determined that no significant issues or objections were raised—so the Proposed Plan remains unchanged. ⁹ However, the Proposed Plan remains proposed and has not been implemented at the Site because the ROD has been in the amendment process since 2014.

Barrett Station, originally known as Barrett's Settlement, is a historically African American town in northeast Harris County, Texas, just twenty miles east of the City of Houston. Barrett Station was founded by Mr. Harrison Barrett, a formerly enslaved person, who purchased the land after the Civil War and established the settlement for his family.¹⁰ Since then, the population of Barrett Station has grown to about 3,800, 61% of whom currently identify as Black or African American.¹¹ A registered "Texas Century Farm" in the Texas Family Land Heritage, Barrett Station is an area of rich, historical significance and continued growth.¹² Mr. Barrett's descendants, including one of his great-grandsons Mr. Fred Barrett, still live in Barrett Station.¹³

The adjacent community continues to live with French Limited as their unpredictable neighbor. The local community is already overburdened, 83% of the community qualifies as low income as compared to the United States—and the community is predominantly people of color, ranking in the 88% percentile compared to the United States.¹⁴ Additionally, the National Air Toxics Assessment (NATA) of local community is in the 93% percentile, as compared to the United States—meaning that the NATA estimates the cancer risk and probability that adverse health effects will occur from exposure to contaminants and from breathing air toxics over many year is likely.

⁹ U.S. EPA SUPERFUND SITE FRENCH LIMITED CLEANUP ACTIVITIES:

https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.cleanup&id=0602498 ¹⁰ All About Barrett, Texas 77532, BARRETT STATION CIVIC LEAGUE, <u>http://barrettstationcivicleague.org/</u> (last visited May 10, 2021).

¹¹ American Community Survey, 5-Year Estimates Data Profiles (2019),

https://data.census.gov/cedsci/table?q=barrett,%20texas&tid=ACSDP5Y2019.DP05; see also HARRIS CNTY. CMTY. SERVS. DEP'T, BARRETT STATION CONCERTED REVITALIZATION AREA (CRA) PLAN: A GUIDE FOR COMMUNITY-BASED REVITALIZATION (2019).

¹² See HARRIS CNTY. CMTY. SERVS. DEP'T, BARRETT STATION CONCERTED REVITALIZATION AREA (CRA) PLAN: A GUIDE FOR COMMUNITY-BASED REVITALIZATION (2019); Brooke A. Lewis, *Communities strive to preserve African-American history at Texas' 'Freedom Colonies'*, HOUS. CHRON. (Dec. 16, 2019),

https://www.houstonchronicle.com/news/houston-texas/houston/article/Communities-strive-to-preserve-African-American-14909510.php; Carla Rabalais, *Descendent of Barrett Station's founder restores ancestor's dream*, HOUS. CHRON. (June 18, 2006), <u>https://www.chron.com/news/houston-texas/article/Descendent-of-Barrett-Station-s-founder-restores-1886758.php</u>.

¹³ Lise Olsen & David Hasemyer, *The Wasteland Underwater*, TEX. OBSERVER (Sept. 24, 2020), <u>https://www.texasobserver.org/superfund-texas/</u>.

¹⁴ U.S. EPA Environmental Justice Screening Tool, available at: https://ejscreen.epa.gov/mapper/

While four Superfund sites surround Barrett Settlement, the French Limited Superfund site is the closest to Barrett, located within one mile. A second Superfund site, the Sikes Disposal Pits, is about two miles away.¹⁵ Mr. Fred Barrett, along with Ms. Pamela Norman, founded the Barrett Economic and Community Development Corporation ("BECDO"), a nonprofit, community-based organization. BECDO's work on behalf of the residents of Barrett and neighboring Crosby, Texas, includes advocating around the French Limited and Sikes Superfund sites with the U.S. EPA and TCEQ.

Due to the dumping activities that took place at French Limited, numerous contaminants have been detected in the groundwater, soil, and/or sludge. These contaminants are:

- 1,1-Dichloroethane
- 2-Methyl-2-propanol
- Arsenic
- Base neutral acids
- Benzene
- Benzo[a]pyrene
- Chloroform
- Metals
- Organics
- Pentachlorophenol
- Pesticides
- Polychlorinated biphen YLS ("PCBs")
- Volatile organic compounds ("VOCs").

Barrett residents fear for their health and safety, knowing that they live in such close proximity to these Superfund sites, particularly French Limited Because the remediation process for the French Limited Site is still not complete, residents of Barrett and Crosby do not have certainty that they are not being exposed to harmful contaminants. Mr. Fred Barrett, who is 68-years-old, has lived in Barrett Settlement his whole life. He not only "grew up drinking from shallow wells they fear were contaminated by groundwater plumes under what became the Superfund site,"¹⁶ but he has also witnessed numerous family members succumb to cancer: His mother died of lung cancer, though "she never smoked a day in her life,"¹⁷ his father died of pancreatic cancer, and three of Mr. Fred Barrett's four grandparents also died of cancer.¹⁸

In fact, in December 2014, the Texas Department of State Health Services ("TDSHS") responded to residents' concerns about a possible link between exposure from the French Limited Site to cancer, and investigated cancer incidences in five census tracts near the French Limited site from

¹⁶ David Hasemyer & Lise Olsen, *Climate change poses a growing threat to hundreds of hazardous waste Superfund Sites*, NBC NEWS (Sept. 24, 2020), <u>https://www.nbcnews.com/specials/superfund-sites-climate-change/</u>.
 ¹⁷ Lise Olsen & David Hasemyer, *The Wasteland Underwater*, TEX. OBSERVER (Sept. 24, 2020),

https://www.texasobserver.org/superfund-texas/

¹⁵ Cleanups In My Community Map, U.S. EPA,

https://ofmpub.epa.gov/apex/cimc/f?p=CIMC:MAP:0::NO::P71_IDSEARCH:SF_SITE_ID%7C0602498.

¹⁸ David Hasemyer & Lise Olsen, Climate change poses a growing threat to hundreds of hazardous waste Superfund Sites, NBC NEWS (Sept. 24, 2020), <u>https://www.nbcnews.com/specials/superfund-sites-climate-change/</u>.

1995 to 2011.¹⁹ TDSHS looked at liver, lung, breast, and ovarian cancer incidences for all ages.²⁰ The study found that "the number of observed lung cancers was statistically significantly higher than expected."²¹ Two of the census tracts "had significantly higher than expected numbers of lung cancer," for both men and women, and a third census tract had significantly higher than expected numbers of lung cancer for women.²² Because TDSHS determined, however, that "[t]here are many possible factors contributing to the increased rates of lung cancer" identified by the investigation, such as smoking, TDSHS did not recommend a more in-depth epidemiologic study of cancer incidences in the area.²³

This fenceline environmental justice community bears disproportionate impacts without relief. And, as is explained in more detail below, climate change in combination with the site's pending affirmative remedies, leave an already vulnerable community particularly vulnerable to shifting Site contamination.

Following Hurricane Harvey, no floodwaters were tested for contaminants, even though the French Limited site had flooded during the hurricane.²⁴ In fact, the EPA had later reported that "[w]ell purging activities" were necessary as part of the Site's 2018 annual groundwater monitoring program, in order "to address potential infiltration of flood water that occurred following Hurricane Harvey."²⁵ Within a month after Hurricane Harvey, only groundwater and soil samples were collected and analyzed for volatile organic compounds ("VOCs") and metals.²⁶ The sampling did not detect VOCs in the groundwater sample or the soil sample; however, chromium and lead were detected at a concentration below the Maximum Contaminant Levels ("MCLs") in the groundwater sample. EPA determined that "[t]hese results are consistent with the results from historic sampling and indicate that the remedy is operating as intended."²⁷

In 2018, the French Limited Task Group reported that underground plumes of benzene and tertiarybutyl alcohol ("TBA") had moved and had "a different shape not found in the previous monitoring data."²⁸ This movement was "likely associated with Hurricane Harvey flooding."²⁹ The GAO rates the French Limited site as one subject to the "highest flood hazard."³⁰

¹⁹ TEX. DEP'T OF STATE HEALTH SERVS., INVESTIGATION # 14005, CANCER CLUSTER INVESTIGATION: FRENCH LIMITED SUPERFUND SITE, HARRIS COUNTY, TEXAS 2 (2014), *available at* <u>https://docplayer.net/9082442-Cancer-cluster-investigation-french-limited-superfund-site-harris-county-texas.html</u> [hereinafter 2014 CANCER CLUSTER STUDY].

²⁰ 2014 CANCER CLUSTER STUDY, 5.

²¹ 2014 CANCER CLUSTER STUDY, 7.

²² 2014 CANCER CLUSTER STUDY, 7-8.

²³ 2014 CANCER CLUSTER STUDY, 8.

²⁴ FRENCH LIMITED TASK GROUP, 2018 ANNUAL GROUND WATER MONITORING REPORT: FRENCH LIMITED SUPERFUND SITE 7 (2018) (stating that "Hurricane Harvey flooding was a significant event for the Site") [hereinafter 2018 ANNUAL GROUND WATER MONITORING REPORT].

²⁵ 2018 Annual Ground Water Monitoring Report, 13.

²⁶ U.S. EPA, EPA SUPERFUND UPDATE – HURRICANE HARVEY: FRENCH LIMITED, INC. (2017).

²⁷ U.S. EPA, EPA SUPERFUND UPDATE – HURRICANE HARVEY: FRENCH LIMITED, INC. (2017).

²⁸ 2018 Annual Ground Water Monitoring Report, 8.

²⁹ 2018 Annual Ground Water Monitoring Report, 9.

³⁰ Superfund: EPA Should Take Additional Actions to Manage Risks from Climate Change, GAO-20-73, Published: Oct 18, 2019. Publicly Released: Nov 18, 2019.

Despite the magnitude of Hurricane Harvey, no specific protocols were published for flood events. Available information only provides that the French Limited Task Group, a group of companies potentially responsible for contamination and charged with the Site's clean-up, works with the EPA to secure the naturally attenuating site.

Yet, for Barrett Settlement and the Gulf Coast region of Texas, the threat of future hurricanes like Harvey is real and continues to grow. In 2019, Texas was struck by Tropical Storm Imelda; in 2020 alone, there were 30 tropical storms and hurricanes, four of which struck Texas: Hurricane Hanna, Hurricane Laura, Hurricane Marco, and Tropical Storm Beta.³¹ Hurricane Hanna, Laura, and Marco were storms that all became hurricanes. As the climate warms, there is an increased chance of strong and dangerous storms. Additionally, research shows that the Earth's continued warming makes a storm similar to Hurricane Harvey, which was an event estimated to occur once every hundred years, is now likely to occur once every 16 years.³²

Conclusion

Thank you again for the opportunity to share Lone Star Legal Aid's work on addressing community concerns around superfund sites and the ongoing threats posed by climate change and extreme weather events to these CERCLA sites. We are hopeful that legislation like the the Proposed Act will assist in the prioritized cleanup of these vulnerable sites and ensure that there is sufficient financial accountability to address the ongoing threat posed by climate change and extreme weather events to environmental justice communities.

³¹ Daniella Silva, NBC News, Record-setting 2020 Atlantic hurricane season ends (November 30, 2020), www.nbcnews.com/news/us-news/record-setting-2020-atlantic-hurricane-season-ends-n1249014.

³² Union of Concerned Scientists, Hurricanes and Climate Change (July 25,

^{2019),} https://www.ucsusa.org/resources/hurricanes-and-climate-change.