

Written Testimony before the U.S. House of Representatives,
Select Committee on the Climate Crisis
Hearing Entitled
“Generation Climate: Young Leaders Urge Climate Action Now”
Aji Piper, Climate Activist and Youth Plaintiff, *Juliana v. United States*
April 4, 2019

Chair Castor, Ranking Member Graves, and distinguished Members of this Select Committee,

Thank you for inviting me to provide testimony to your Select Committee on the Climate Crisis. My name is Aji Piper. I’m 18-years-old. I love vanilla bean ice cream, snowboarding, and writing songs on my ukulele. I love my family and my friends and my home near the Puget Sound in Seattle. And I am suing the United States government for knowingly causing climate change as the largest historic contributor to the problem and for continuing, even now, to make a dangerous situation worse.

I have been reading climate science literature since I was 13-years-old. I have also been studying what my governments have done about the climate crisis during my lifetime, and even before I was born. For much of my life, I saw climate change as a problem that would be solved by adults in nice suits in a faraway Capitol. But as I grew up, and the coal and oil trains kept rolling through my hometown of Seattle, and the oil tankers kept sailing in and out of Puget Sound, I became apprehensive.

The late summer skies over Seattle now regularly fill with wildfire smoke, people walk around in gas masks, our ocean waters around my hometown are acidifying and rising, and yet there are still politicians in Washington, D.C. talking about climate change as if it is an issue to debate and still talking about promoting fossil fuel energy as if the pollution from that energy source is not dangerously destroying the one planet we’ve got, and the lives and futures of children along with it. I got to a point where I felt like I could no longer wait for the solutions to come from the Capitol or the adults that are responsible to protect young people like myself.

I am one of the 21 Youth Plaintiffs in the constitutional climate lawsuit, *Juliana v. United States*. Our complaint asserts that, through the federal government's affirmative actions in causing climate change, it has violated my constitutional rights, and those of my generation, to life, liberty, property, and equal protection under the law, as well as failed to protect vital public trust resources.¹ While I am not a legal expert, nor a climate scientist, and I only recently came of voting age, the goal of my testimony is to explain my perspective on the most consequential and

¹ First Amended Complaint, *Juliana et al. v. United States et al.*, No. 6:15-cv-01517-AA (D. Or. Sept. 10, 2015) (Exhibit DD).

far-reaching issues of our time, an issue that all three branches of this government are duty bound to address.



The Juliana Plaintiffs

As a young black man, I have grown up with the long-lasting consequences of unconstitutional discrimination from government-sanctioned and -engineered segregation. My childhood was shadowed by trauma from an abusive father. The trajectory of his life was formed in part by generational trauma of unlawful discrimination. Generations of black families have lived with the lasting legacy of government-sponsored racial discrimination, not just in the South, but in places like Seattle, where white suburbs formed out of federal government policies with restrictive covenants on housing developments and federally-guaranteed loans to homeowners that only whites could take advantage of. Cities across the country are segregated because of these federal policies that were finally declared unconstitutional after World War II by the Supreme Court, and that this branch of government attempted to redress decades later in the Fair Housing Act of 1968.² But the damage had been done and the legacy of that unconstitutional government conduct remains today in the color and shape of our communities, the makeup of our schools, the voting districts, and the disparity in those who were able to acquire home equity and wealth and those who were not. Unconstitutional systemic government actions have long-lasting social consequences. Innocent children inherit those legacies.

² *The Color of Law: A Forgotten History of How Our Government Segregated America*, Richard Rothstein (2017)

In response to decades of unconstitutional discrimination, in May of 1963, thousands of children led marches through Birmingham, Alabama to demand the desegregation of the city in a movement now known as the Birmingham Children's Crusade. On the first day of the protest, hundreds of children were arrested. By the second day, police officers tried to stop the marches by using fire hoses and police dogs to attack the children. On May 10, 1963, within one week of the first march, the city acquiesced to the children's demands, agreeing to desegregate businesses and to free all who had been jailed during the demonstrations. These youth stood at the forefront of one of the most pivotal moments in civil rights reform in the United States, using non-violent protest as a means to advance human rights.

Young people are often on the frontlines of human rights abuses, experiencing the most severe impacts of bigotry, oppression, and violence, sometimes in their own homes and often at the hands of adults in positions of power who do not act in the best interest of children. They are also inevitably at the forefront of the movements that emerge to address these issues, as we saw in the Child Labor Law Movement or the Civil Rights Movement.

Climate change is no different. My generation, and generations to come, have the most to lose from the sweeping impacts of climate change. As a result, youth throughout the world have taken the lead in the movement to address this existential threat. Just last month, over a million students the world over walked out of class to demand urgent and sane climate action from the adults in charge.

The entrenched federal government policies of orchestrating, promoting, supporting, subsidizing, sanctioning, and permitting a fossil fuel energy system will perpetrate as long-lasting harm on generations of innocent children as did this body's legal sanctioning and promotion of segregation. When government sanctions and controls a system that unconstitutionally deprives children of their basic fundamental rights to life, liberty and property, that system must be dismantled, and it is up to all three branches of this federal government to act now while there is still time to uphold the rights of my generation, to stop the perpetuation of intergenerational injustice.

Our case, Juliana v. United States

I, along with 20 other youth plaintiffs, Dr. James Hansen as guardian for future generations, and a youth-led organization called Earth Guardians, filed the landmark *Juliana v. United States* lawsuit in August 2015. Since the time our case was filed, when President Obama was in the White House, the federal defendants³ have done everything in their power to stop *Juliana* from

³ The United States Of America; The Office Of The President Of The United States; Council On Environmental Quality; Office Of Management And Budget; Office Of Science And Technology Policy; The United States Department Of Energy; The United States Department Of The Interior;

going to trial. They have made unprecedented and drastic efforts to have it thrown out before we get our day in court. Nonetheless, we have won every step of the way. In November 2016, we received a historic opinion from U.S. District Court Judge Ann Aiken, who aptly began her decision by referring to *Juliana* as “no ordinary lawsuit.”⁴

Judge Aiken’s opinion stated that:

Exercising my ‘reasoned judgment,’ . . . I have no doubt that the right to a climate system capable of sustaining human life is fundamental to a free and ordered society. Just as marriage is the ‘foundation of the family,’ a stable climate system is quite literally the foundation ‘of society, without which there would be neither civilization nor progress.’⁵

As part of her decision, the district court properly found the right “to a climate system capable of sustaining human life” is both fundamental to ordered liberty and deeply rooted in our Nation’s history and traditions. The district court also found we should have an opportunity to present evidence to show that my federal government has knowingly violated this fundamental right.⁶ In response, the Executive Branch defendants say that: “Plaintiffs’ purported right to a ‘climate system capable of sustaining human life’ has no basis whatsoever in this Nation’s history or tradition and is therefore not a fundamental right.”⁷ My government leaders are denying that the very foundation of life on Earth, our climate system, is one of my unalienable rights as a human living in this Nation. They say it is not one of the rights that I was endowed with when I was born. They say that my government can deprive me and all human civilization of the climate foundation of life, and discriminate against me, other children and all future generations in favor of supporting a fossil fuel-based economy and the narrow interests fossil fuels support, over policies that power clean energy and don’t threaten my life and my security.

Our lawsuit makes a number of other claims, including that the United States government has a fiduciary responsibility to protect our public trust resources, such as the air, fresh water, the sea and the shores of the sea, not just for my generation, but for future generations as well. My co-plaintiffs and I are beneficiaries of rights under the public trust doctrine, unalienable rights that are secured by the substantive due process clause of the Fifth Amendment and the Posterity

The United States Department Of Transportation; The United States Department Of Agriculture; The United States Department Of Commerce; The United States Department Of Defense; The United States Department Of State; The United States Environmental Protection Agency

⁴ *Juliana v. United States*, 217 F. Supp. 3d 124 (D. Or. 2016) (Exhibit S).

⁵ Exhibit S.

⁶ See also District Court order granting in part and denying in part Defendants Motion for Summary Judgment and Motion for Judgment on the Pleadings (Exhibit T).

⁷ Defendants’ Reply Brief on Interlocutory Appeal (Exhibit EE).

Clause of the Constitution. Defendants have failed in their duty of care to safeguard the interests of my generation as the present and future beneficiaries of the public trust.

We have a tremendous amount of evidence, mostly from government documents, showing that the U.S. government has knowingly endangered our health and welfare by creating and promoting a national fossil fuel-based energy system, through controlling (1) Energy planning and policies; (2) fossil fuel extraction and production; (3) subsidies, financial and R&D support; (4) imports and exports; (5) interstate fossil fuel infrastructure and transport; (6) power plants and refineries; (7) energy standards for appliances, equipment, and buildings; (8) road, rail, freight, and air transportation; (9) government operations.⁸ All of these deliberate orchestrated actions by the United States have cumulatively resulted in dangerous levels of atmospheric CO₂, which deprive us of our fundamental rights to life, liberty, and property. Importantly, the Defendants have admitted many of the allegations in our complaint, including that greenhouse gases “pose risks to human health and welfare” and “threaten the public health and welfare of current and future generations;” that the U.S. has emitted 25 percent of cumulative global CO₂ emissions from 1850 to 2012; and current CO₂ concentrations are “unprecedented for at least 2.6 million years.”⁹

While the Defendants have been unsuccessful at stopping our case, they have certainly delayed it, and time is not on our side. Just weeks before we were set to begin what would have been, and certainly will be, the most important trial of the century for my generation, the Supreme Court issued a temporary stay of our trial in order to consider whether to stay our case and review it before a final decision.¹⁰ While the Supreme Court ultimately denied the defendants’ request and lifted the stay, the case has bounced up and down between the U.S. Supreme Court, the Ninth Circuit Court of Appeals and the District Court, while fossil fuels continue to be extracted and burned.¹¹ As our planet drifts ever-closer to the point of no return, we knew we had to do something.

Our request for a Preliminary Injunction during the Delay on Appeal

In February, we filed a motion to the Ninth Circuit Court of Appeals seeking an injunction to stop the actions by the U.S. government that are continuing to put me and other young people in danger by worsening climate change. Specifically, we asked:

⁸ Expert Report of James Gustave (“Gus”) Speth (Exhibit U); Declaration of Peter A. Erickson (Exhibit E).

⁹ Defendants Answer ¶¶ 5, 151, 208-09; 213 (Exhibit FF); Exhibit R.

¹⁰ *In re United States*, 139 S. Ct. 16, *vacated*, 139 S. Ct. 452 (2018).

¹¹ For the briefing before the Ninth Circuit Court of Appeals on the government’s interlocutory appeal see Exhibit P (Defendants’ Opening Brief); Exhibit Q (Plaintiffs’ Answer Brief); Exhibit EE (Defendants’ Reply Brief); *see also* Exhibit O (*Amicus* brief submitted by 80 law professors in support of Plaintiffs)

This Court should preliminarily enjoin, for the pendency of this interlocutory appeal, Defendants from authorizing through leases, permits, or other federal approvals: (1) mining or extraction of coal on Federal Public Lands; (2) offshore oil and gas exploration, development, or extraction on the Outer Continental Shelf; and (3) development of new fossil fuel infrastructure, in the absence of a national plan that ensures the above-denoted authorizations are consistent with preventing further danger to these young Plaintiffs.¹²

This injunction is urgently needed because, despite long-standing knowledge of the resulting destruction to our Nation and the profound harm to myself and my co-plaintiffs, the federal government's ongoing development of the fossil fuel-based energy system is actively harming us and making it more difficult for us to ever solve this crisis. While a complete halt on these actions may seem like a radical request to some of you, scientists tell us that nothing short of stopping these kinds of additional fossil fuel development can avert the worst effects of climate change, and prevent us from entering a period of irreversible baked-in, or runaway, heating. I wish incremental actions were enough, but the government's long-standing actions perpetuating a fossil fuel energy system have put us in this situation. But here's the upshot, our top experts say that neither the injunction we seek, nor our ultimate remedy in the case will hurt the economy. In fact, they say that it will *help* the economy and create new jobs, and is our only real shot at preventing our economy from tanking from the increasing costs of climate disasters, the enormous economic threats that climate change poses, and the lost opportunity to lead the market transition away from fossil fuels that other nations are outpacing us on.¹³

Please listen to the experts; The harm is real and is happening to us now

In *Juliana v. United States*, my co-plaintiffs and I are very fortunate to be supported by some of the world's top climate change science and solution experts. I've included some of their written expert testimony as attachments to my testimony and I encourage you to read them.

According to Dr. Jerome Paulson, Professor Emeritus at George Washington University who submitted a declaration in support of our preliminary injunction filing: "Each month that passes by without action by the federal government to reduce fossil fuel extraction and GHG emissions exacerbates this already grave public health emergency facing our nation's most vulnerable population — our children."¹⁴

¹² Exhibit A.

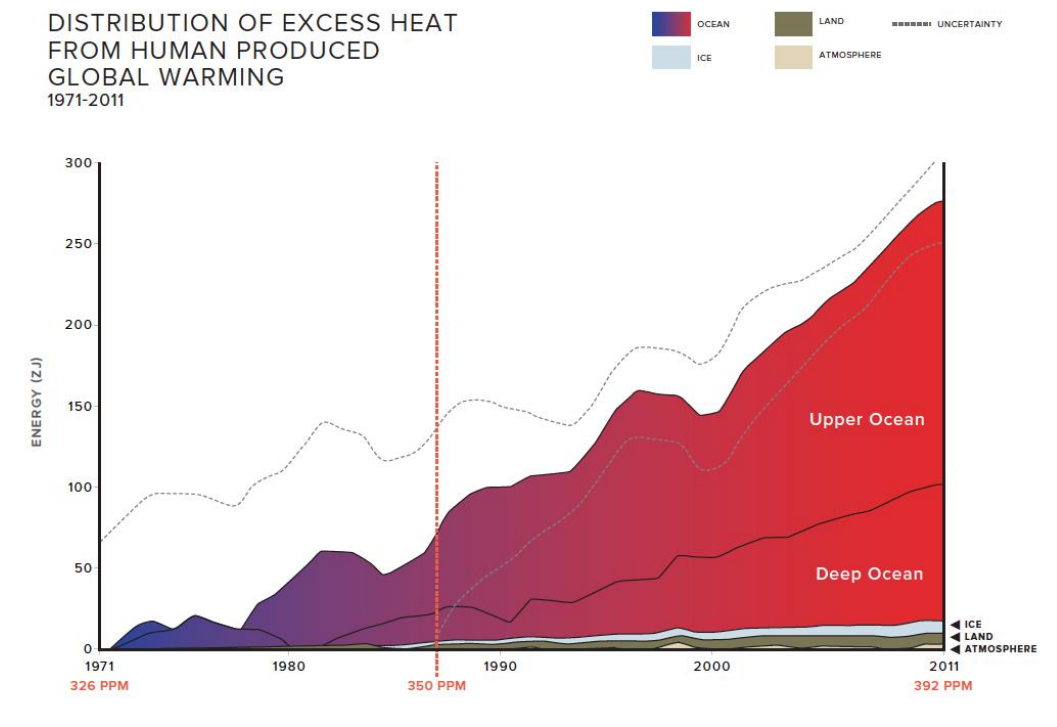
¹³ Declaration of Joseph E. Stiglitz (Exhibit I).

¹⁴ Exhibit D, p. 7.

Nobel Prize-winning economist Joseph Stiglitz testified: “There is no urgency to promote more fossil fuels. There is no urgency for energy supply. There is no urgency for employment or economic growth. There is, however, real urgency to stop the climate crisis and the already-dangerous status quo from worsening, and to protect these young people’s constitutional rights. There are very real and substantial societal costs and risks of moving forward with these fossil fuel enterprises while this lawsuit is pending.”¹⁵

Dr. Steve Running, Professor Emeritus at the University of Montana and Nobel prize winner testified: “The Federal Government has for many years had knowledge, information, and scientific recommendations that it needed to transition the Nation off of fossil fuels in order to first prevent against, and now try to stop, catastrophic climate change. We are well beyond the maxim: ‘If you find yourself in a hole, quit digging.’”¹⁶

Dr. Ove Hoegh-Guldberg, Professor of Marine Studies and the Director of the Global Change Institute at The University of Queensland stated in his declaration: “Th[e] absolute amount of excess heat absorbed by our oceans is tremendous: the equivalent of energy from approximately 1.5 Hiroshima-sized atomic bombs per second over the past 150 years, at-present the equivalent of approximately 3-6 Hiroshima-sized bombs every second” (see Figure 1).¹⁷



¹⁵ Exhibit I, p. 15.

¹⁶ Exhibit G, p. 26.

¹⁷ Exhibit F, p. 4.

Figure 1: Distribution of global-warming energy accumulation (heat) relative to 1971 and from 1971 to 2011. Half of the human-produced global warming heat has entered the ocean since 1997.¹⁸

Over the past month, we have heard stories on the news of entire towns in the midwest wiped off of the map by massive flooding events triggered by a historic ‘bomb cyclone.’ Hurricane Florence, which hit North Carolina last fall and brought historic flooding, Hurricane Michael, which flattened the community of Mexico Beach, Florida in 2018, and Hurricane Maria that decimated Puerto Rico in 2017, have become our new normal. These storms will only get worse unless we take urgent action.¹⁹

My fellow plaintiff Jayden experienced one of these climate change-driven super storms first hand in 2016, when she woke up to find feet of standing water in her bedroom. Her house in Rayne, Louisiana had been flooded in a ‘thousand-year storm’, yet these storms seem to be coming year after year. Her family is still making repairs on their home after three years.²⁰

Wildfire

It’s not just storms that we have to worry about. I have experienced firsthand how wildfire seasons extended by two and a half months throughout the west are shrouding our communities with smoke for months on end, causing innumerable respiratory health issues, and taxing our emergency response funds (see Figure 2). It is not just rural communities that are experiencing this smoke, it is urban areas as well. I never thought that living in the United States would come with air quality warnings advising me to stay inside and school and youth sports activities being canceled so we aren’t harmed by breathing the air. I can’t tell you how scary it is to see people walking down the street in gas masks in August in Seattle, which used to be the most beautiful time to be outside in the Pacific Northwest.²¹

¹⁸ Chart is a modified version of a chart found in Nuccitelli, D. et al., *Comment on Ocean heat content and Earth's radiation imbalance. II. Relation to climate shifts*, Physics Letters A, Vol. 376, Issue 14 (2012).

¹⁹ Declaration of Kevin E. Trenberth (Exhibit B).

²⁰ Exhibit W.

²¹ Declaration of Steven W. Running (Exhibit G); Declaration of Aji. P (Exhibit X).



Figure 2: Wildfire smoke shrouds Seattle.²²

Sea Level Rise

If we don't make serious change now, in just a few decades some of the largest cities in the United States will first become uninhabitable and then be entirely submerged, as well as a vast majority of the state of Florida. My fellow plaintiff, Levi, will watch his family home and the entire island that he grew up on go underwater with just a few feet of sea level rise, which could hit by mid-century. He will become a climate refugee long before then (see Figures 3 and 4).²³

²² Agueda Pacheco-Flores, *Puget Sound air-quality warnings: Beware of smoke from British Columbia fires*, *The Seattle Times* (Aug. 13, 2018); available at: <https://www.seattletimes.com/seattle-news/british-columbia-wildfire-smoke-is-impacting-air-quality-warnings-issued-for-vulnerable-groups/>.

²³ Declaration of Levi D. (Exhibit Y); Declaration of Dr. James Hansen (Exhibit L); *see also* Hansen, J., et al., (2016). *Ice melt, sea level rise and superstorms: Evidence from paleoclimate data, climate modeling, and modern observations that 2°C global warming could be dangerous*. *Atmos. Chem. Phys.*, 16, 3761-3812, doi:10.5194/acp-16-3761-2016.

U.S. Government Global Sea Level Rise Projections

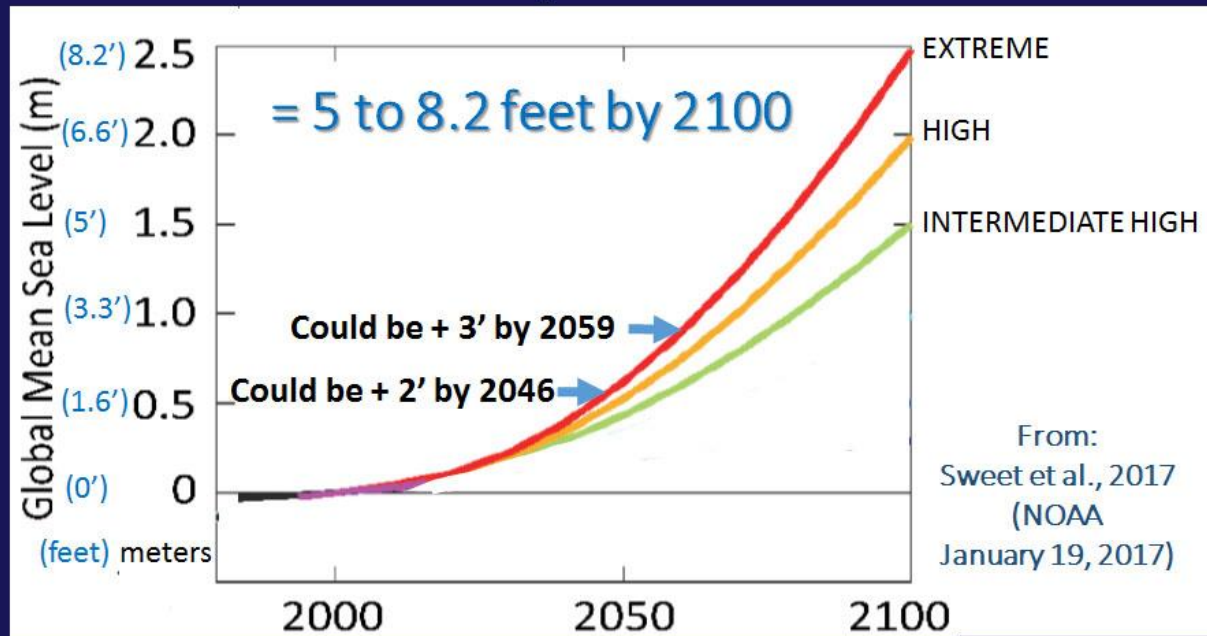


Figure 3: U.S. government sea level rise projections through 2100.²⁴

²⁴ Exhibit Z.

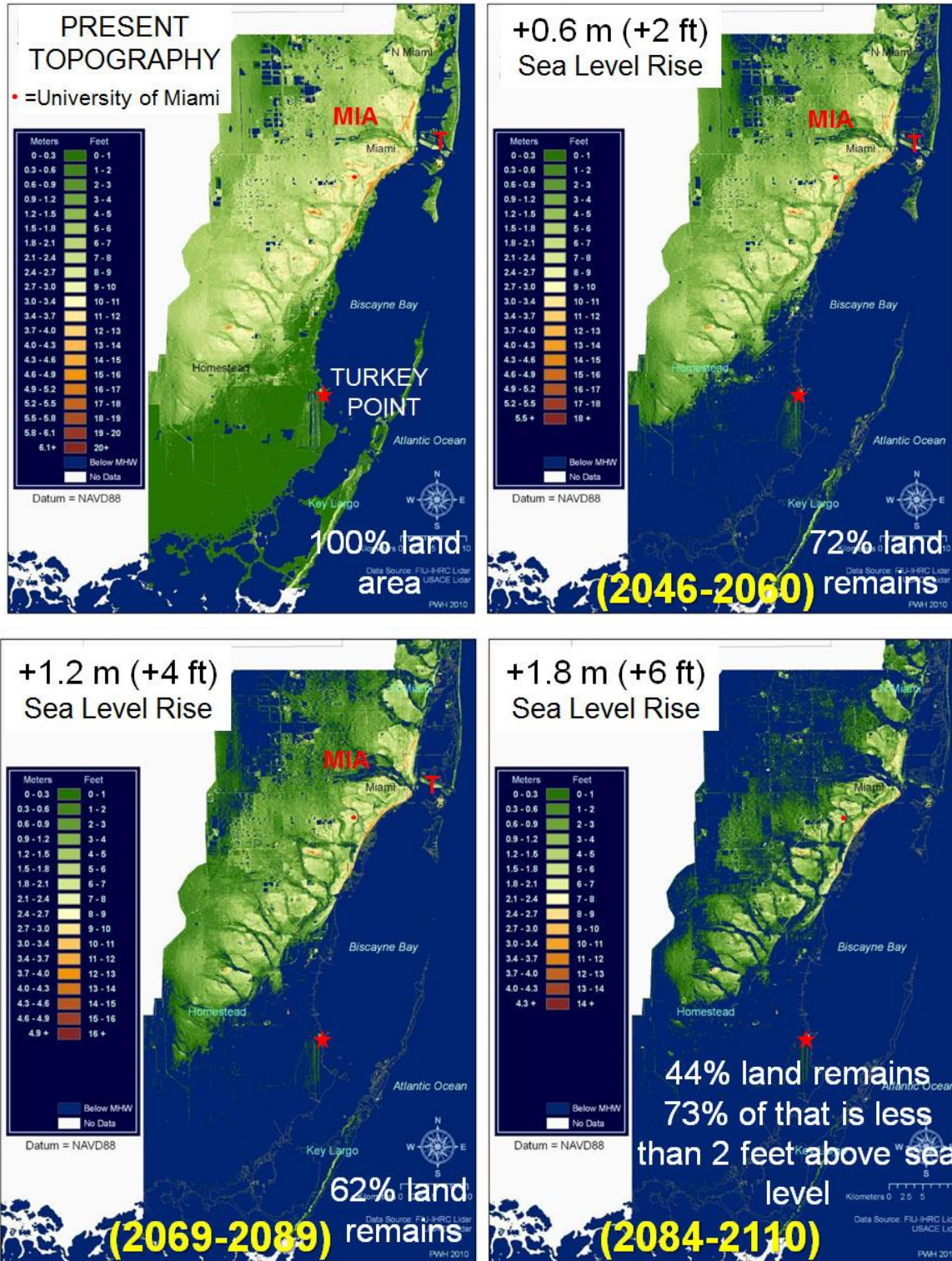


Figure 4: Sea level rise projections for southern Florida.²⁵

²⁵ Exhibit Z.

The economic impacts of sea level rise to our country will be astronomical. Just 25 years from now, coastal properties in the U.S. worth some [\\$136 billion](#) will be at risk of chronic flooding. By the end of the century, that rises to [\\$1 trillion](#) in properties at risk of chronic flooding - not to mention the billions of dollars that would be lost in other sectors.²⁶

National Security Threat

Many people in communities throughout the United States, including some along the Washington coast, are already being forced from their homes because of flooding and sea level rise. All of these people, and many more, will be displaced permanently if we do not act now. This displacement would in turn lead to massive geo-political destabilization. An expert declaration provided by retired Vice Admiral and Former Inspector General of the United States Department of the Navy, Lee Gunn, states:

Climate change is the most serious national security threat facing our Nation today. Climate change contributes to increased extreme weather events, rapidly changing coastlines, and conflicts over basic resources like food and water, which lead to humanitarian crises with increased migration and refugee flows. Climate change is a “threat multiplier” and “catalyst for conflict” and directly threatens our military and the “Department of Defense’s ability to defend the Nation.” Climate change poses unprecedented risks to our Nation’s economic prosperity, public health and safety, and international stability.

Vice Admiral Gunn goes on:

The great danger for young people, is that they are being handed a situation that is out of their control, a situation made more egregious due to the fact that the Defendants have a complete understanding of precisely how dangerous the situation is that they are handing down to these Plaintiffs.²⁷

Public Health

The medical community across the country is sounding alarm bells about the public health emergency that climate change is causing. As an *amicus brief* filed in support of my case in the Ninth Circuit, on behalf of 78 doctors and medical professional and 14 medical organizations,²⁸ stated:

²⁶ Union of Concerned Scientists, *Underwater: Rising Seas, Chronic Floods, and the Implication for US Coastal Real Estate* (2018), available at: <https://www.ucsusa.org/global-warming/global-warming-impacts/sea-level-rise-chronic-floods-and-us-coastal-real-estate-implications>.

²⁷ Exhibit K.

²⁸ The organization are: American Academy of Allergy, Asthma and Immunology; American Academy of Pediatrics; American Association of Community Psychiatrists; American Heart

The medical community widely considers the health effects of human-induced climate change, GHG emissions, and the other air pollutants that are emitted when fossil fuels are combusted to be significant public health threats, representing an unacceptably high level of risk for the current and future health of the U.S. population.²⁹

The Targets You Set Will Matter

What is clear now is that climate change is already dangerously affecting people within the United States with 1 degree of warming. It is not just scientists who have come to that conclusion. My co-plaintiffs and I, along with other communities and individuals that are experiencing the devastating impacts I have just described, understand the perils of living in this climate system. The situation is only going to get worse if the planet becomes 1.5°C warmer than pre-industrial levels. This is the temperature target that is called for by the Paris Climate Accord. It is the target called for in the Green New Deal, and by the countless cities, states, and climate advocacy groups around the country that have endorsed it. To be clear, 1.5°C of warming, or approximately 425 parts per million (ppm) of carbon dioxide in the atmosphere, is genocide, and a death sentence for human civilization as we know it. Even the 2018 IPCC report on the impacts of 1.5°C concluded that allowing the globe to warm to 1.5°C will involve devastating impacts. Chapter 5 of the report states plainly that 1.5°C is not safe:

Warming of 1.5°C is not considered ‘safe’ for most nations, communities, ecosystems, and sectors and poses significant risks to natural and human systems as compared to current warming of 1°C (*high confidence*) (see Chapter 3, Section 3.4, Box 3.4, Box 3.5, Cross-Chapter Box 6 in Chapter 3).

This body should never endorse a target that destroys Levi’s island and much of Florida or my Puget Sound, damages the lungs of children in the West, decimates the rich croplands of the midwest, or floods homes across the country from fossil fuel-fed unprecedented storms.

The now-pervasive 1.5°C target first appeared in the lead up to the 2009 UNFCCC Conference of Parties in Copenhagen, Denmark (COP 15), as a result of the advocacy of the Alliance of Small Island States (AOSIS). At a time where international political negotiations still revolved around 2°C, AOSIS advocated for “*well below 1.5°C*,” and relied on the work of Dr. James Hansen, one of our experts, and his colleagues’ research arguing that a 350 ppm CO₂ target was

Association; American Lung Association; American Pediatric Society; American Thoracic Society; Infectious Diseases Society of America; International Society for Children’s Health and the Environment; Medical Society Consortium on Climate and Health; National Association of County and City Health Officials; National Environmental Health Association; National Medical Association; and Society for Academic Emergency Medicine.

²⁹ Exhibit N, p. 8.

necessary to preserve a habitable climate.³⁰ In later research, Hansen and his colleagues determined that 350 ppm would only lead to 1°C of long-term warming, which was an important target to aim for by 2100.³¹ Yet as time went on and contentious climate negotiations ran their course, the “well below” portion of AOSIS’s “well below 1.5°C” position was lost, and the world’s governments settled on 1.5°C as a compromise goal. But they did so without any scientific support for the notion that we would be safe with 1.5 degrees of warming.

We have to ask ourselves: Are we willing to ‘compromise’ on our safety and our future?

In the long term, 1.5°C warming means melting most of the ice sheets on the planet and more than 70 feet of sea level rise (see Figure 5).³² The reason we know this is because this is what sea levels were the last time carbon dioxide levels were as high as they are today. According to a study by McGranahan et. al., over 600 million people live within 30 feet above sea level.³³ The Fourth National Climate Assessment, using modest estimates of sea level rise, found that “[s]ea level rise might reshape the U.S. population distribution, with 13.1 million people potentially at risk of needing to migrate due to a SLR of 6 feet (about 2 feet less than the Extreme scenario) by the year 2100.”³⁴

³⁰ Hansen, J., et al., (2008). *Target atmospheric CO₂: Where should humanity aim?* Open Atmos. Sci. J., 2, 217-231, doi:10.2174/1874282300802010217.

³¹ Hansen, J., et al., (2013). *Assessing “dangerous climate change”: Required reduction of carbon emissions to protect young people, future generations and nature.* PLOS ONE, 8, e81648, doi:10.1371/journal.pone.0081648.

³² Expert Report of Dr. Harold R. Wanless, p. 6-7 (Exhibit Z); Declaration of Eric Rignot (Exhibit H).

³³ McGranahan, G., Balk, D., & Anderson, B. (2007). *The rising tide: assessing the risks of climate change and human settlements in low elevation coastal zones.* Environment and urbanization, 19(1), 17-37.7

³⁴ U.S. Global Change Research Program, “Ch. 8 Coastal Effects”, *Fourth National Climate Assessment, Volume II, Impacts, Risks, and Adaptation in the United States* 335 (2018), <https://nca2018.globalchange.gov>.



Figure 5: Map of the south Atlantic and Gulf coasts showing the inundation that would occur with 70 feet of sea level rise.³⁵

All of these people, and more, will be displaced if we allow the 1.5°C target to remain in place. Even the 2018 IPCC report plainly states that 1.5°C warming is not safe, but governments and groups continue to push us towards this disaster. At 1.5°C we also lose the world's coral reefs and ocean life becomes threatened, meaning our food sources disappear and the rich biodiversity of our planet crashes.

The writing is on the wall: this body needs to look beyond the arbitrary 1.5°C target for one that is based in the best available science, and that will allow us to avoid the most grievous impacts of climate change. Scientists tell us that 1°C (350 ppm CO₂) is the maximum level of long-term warming that our civilization can survive this century. And we likely need to return even closer to preindustrial CO₂ levels of 280 ppm over the longer term. So why aren't we acting like it?

Is it radical to seek integration of all schools instead of just some? Is it radical to stand up for the rights of children and future generations? Is it radical to want to stop the danger we face? Is it radical to want to save what you love?

A Remedy is Still Possible but the Window is Closing

We have the technology to follow the path of emissions reductions the experts say we need to in order to have a chance at health and survival for us and our planet. It is within reach to transition to a decarbonized energy system by 2050, and to increase natural carbon sequestration through

³⁵ Exhibit Z.

reforestation and sustainable agriculture to bring us back to 350 ppm by the end of the century.³⁶ The U.S. needs to do its part in the world to make that happen. It will not happen without us.

While many critics often cite the expense of a transition to renewable energy, experts expect a transition off of fossil fuels would have a minimal increase on national energy costs, and the costs would be well below the historic spikes in energy costs due to volatile fossil energy prices (see Figure 6).³⁷ This temporary increase in energy system costs is trivial compared to the oppressive costs we can expect if we continue to stumble our way into an unmitigated climate catastrophe.

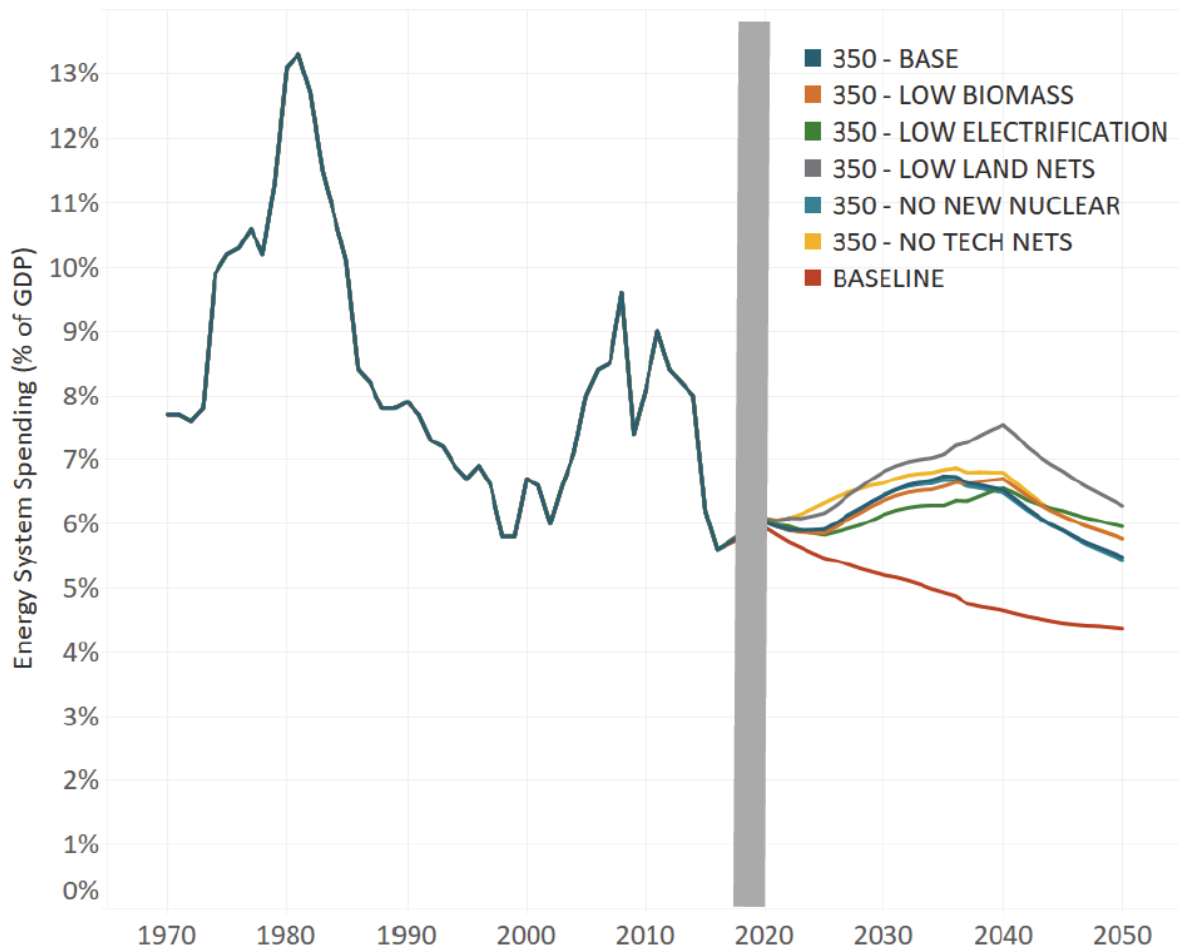


Figure 6: Total spending on the U.S. energy system represented as a percentage of GDP. Historical spikes from the 1970s oil crisis and high oil prices in 2006-2010. Modeled variations

³⁶ Declaration of Mark Z. Jacobson (Exhibit C); Declaration of James H. Williams (Exhibit J); Exhibit V.

³⁷ Exhibit V.

on the right illustrate the cost of multiple scenarios that transition the U.S. off of fossil fuels by 2050.³⁸

Because CO₂ is the primary driver of climate destabilization, all government policies regarding CO₂ pollution and CO₂ sequestration should be aimed at reducing global CO₂ concentrations below 350 ppm by 2100. Other greenhouse gases should also be reduced as much as possible and as rapidly as possible. Time is running out. We can no longer afford to base greenhouse gas reduction targets, with tangible consequences for life and death, on politics rather than science.

We are at a critical juncture — never in my life have I seen so much momentum to address the climate challenge. We must not waste this energy, and as such, we must reevaluate our goals and where they are coming from. We can't truly succeed if we're relying on targets based on political compromise instead of the best available science.

We have a fundamental right to a liveable future, and that future requires us to limit global warming to 1°C by the end of the century.

Long-Standing Government Knowledge

My involvement in the *Juliana* lawsuit has given me insight into the injustices of climate change, and a better understanding of the United States Government's responsibility for it.³⁹ In preparing our case, we uncovered documents that show us that the Government has known about the threats of carbon dioxide for more than half a century. One of my co-plaintiffs, Alex, uncovered a 1961 [letter](#) to President Kennedy, where U.S. Senator Clinton Anderson voices the predictions of scientists about catastrophic climate change and sea level rise due to fossil fuel CO₂ emissions.⁴⁰ Just a few years later, President Lyndon B. Johnson received a more pointed warning in a report from noted climate scholar Charles David Keeling, and dozens of university researchers, that “man is unwittingly conducting a vast geophysical experiment,” by burning fossil fuels.⁴¹ This 1965 White House report clearly outlined the connection between the burning of fossil fuels and climate change (see Figure 7).

³⁸ Williams, J. et al. *Assessing the feasibility of 350 PPM CO₂ targets in the United States*. 2019.

³⁹ Expert Report of James Gustave (“Gus”) Speth (Exhibit U).

⁴⁰ Exhibit BB.

⁴¹ Report of the Environmental Pollution Panel President's Science Advisory Committee,

Restoring the Quality of our Environment (1965); available at:

<https://babel.hathitrust.org/cgi/pt?id=uc1.b4116127;view=1up;seq=11>.

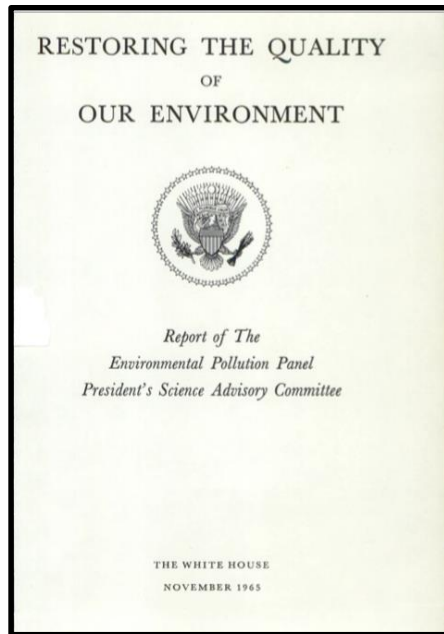


Figure 7: Cover of 1965 Restoring the Quality of our Environment report.

Back in September 1969, Daniel Patrick Moynihan, Urban Affairs Adviser to President Nixon, wrote White House counsel John Ehrlichman stating that CO₂ emissions resulting from burning fossil fuels was a problem perhaps on the scale of “apocalyptic change,” threatening the loss of cities like New York and Washington D.C. from sea level rise. The 1969 Moynihan Letter urged the Federal Government to immediately address this threat. Moynihan wrote that it was “pretty clearly agreed” that carbon dioxide content would rise 25 percent by 2000. “This could increase the average temperature near the earth's surface by 7 degrees Fahrenheit. This in turn could raise the level of the sea by 10 feet. Goodbye New York. Goodbye Washington, for that matter.”⁴²

Despite these warnings, and the many more that followed, our nation’s leaders actively perpetuated climate change by permitting fossil fuel extraction on public lands and subsidizing fossil fuel extraction (see Figure 8).

⁴² Exhibit CC.

U.S. FOSSIL FUEL PRODUCTION AND GLOBAL CO₂ CONCENTRATION 1949-2017

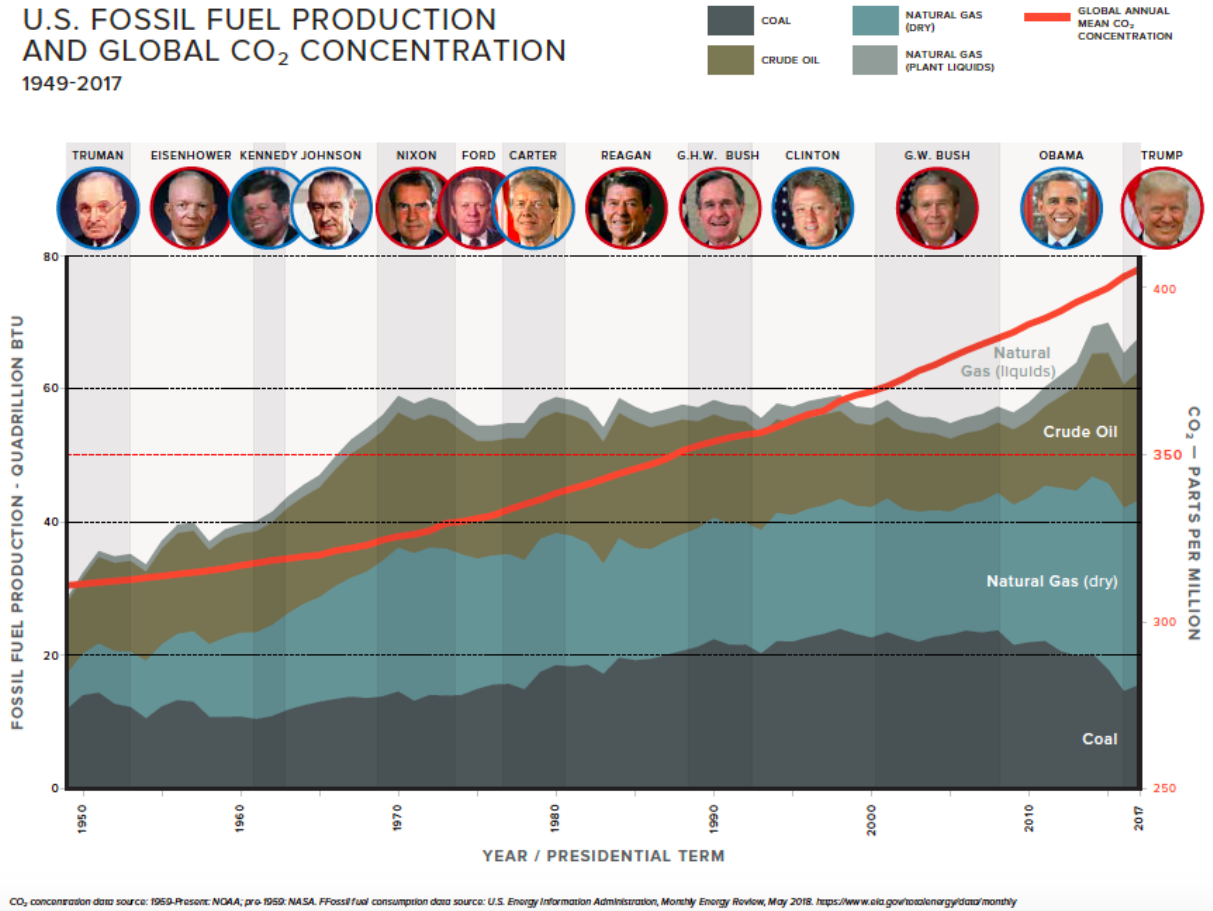


Figure 8: U.S. fossil fuel production and CO₂ concentration for every presidential administration since President Truman.⁴³

Historical Precedent for Our Case and Our Unalienable Rights

The *Juliana v. United States* lawsuit is not without precedent. In fact, it has ample support in the historic record, and even in the words of the Framers of the U.S. Constitution. According to expert historian Andrea Wulf, there are deep roots to the constitutional right to a stable climate. In her expert report, she discusses how the Founders believed that “Nature is the domain of liberty,” linking national “happiness, dignity, and independence” to the quality of the lands. She goes on to discuss how James Madison’s speech of 1818 was “emblematic of how deeply rooted the importance of nature in balance was to the Framers and to the young nation”:

Madison was the first American politician to write that ‘the atmosphere is the breath of life. Deprived of it, they all equally perish,’ referencing animals, man

⁴³ Exhibit U.

and plants. He spoke of the balanced composition of the atmosphere and the give and take of animals and plants, which allowed the atmosphere the aptitude to function so as to support life and the health of beings, according to nature's laws.⁴⁴

The Framers adopted John Locke's philosophy ("laws human must be made according to the general laws of Nature... otherwise they are ill made") that human laws must conform to nature's laws for the preservation of humankind. As such, Thomas Jefferson wrote extensively about this concept, stating "that our Creator made the earth for the use of the living and not of the dead ... that one generation men cannot foreclose or burthen its use to another."⁴⁵

All of these examples clearly demonstrate the fact that, while the Founding Fathers were unable to foresee the grave threat of human-caused climate change hundreds of years ago, they nevertheless intended to enshrine the protection of the public trust into our nation's constitution, and to ensure the fundamental right of present and future generations to access to the natural resources that previous generations benefitted from, and on which human survival depends.

Wulf goes on to reference other American presidents who have voiced the Government's responsibility to preserve the natural world for future generations, such as Theodore Roosevelt, who said:

The function of our Government is to insure to all its citizens, now and hereafter, their rights to life, liberty and the pursuit of happiness. If we of this generation destroy the resources from which our children otherwise derive their livelihood, we reduce the capacity of our land to support a population, and so either degrade the standard of living or deprive the coming generations of their right to life on this continent.⁴⁶

In Conclusion

Growing up with the looming threat of climate change has had lasting impacts on my mental health. Thinking about the future has been a constant source of anxiety and depression for me. I have felt as if there is a pressure cooker boiling over inside of me. I can hardly focus at times because I am overwhelmed with existential horror about the fate of planet.

⁴⁴ Exhibit AA.

⁴⁵ Thomas Jefferson to Thomas Earle, Sept. 24 1823, *The Writings of Thomas Jefferson* vol. VII, 310-11 (H.A. Washington ed. 1854).

⁴⁶ Exhibit AA.

I am a child of abuse. I know the feel of it on my skin and deep in my psyche. And what my government is doing to perpetuate indefinitely fossil fuel energy, and not take urgent comprehensive action to try to stop climate change, is a form of abuse on young people, who don't have the votes or the lobbying money to stop it. But we cannot just sit back and take it. Not anymore. Government actions that ramp up the danger, hurt our health, destroy our homes, endanger our communities, and scar our emotional wellbeing must stop.

My climate change-induced state of panic is not uncommon amongst my peers. According to Dr. Lise Van Susteren, another expert on our case and an Advisor for the Harvard Medical School Center for Health and the Global Environment, "it is the emotional toll of climate change that is even more catastrophic, especially for our children. It has the capacity to destroy children psychologically."⁴⁷

In Judge Aiken's 2016 opinion, she cites the Supreme Court when it wrote in *Obergefell v. Hodges*:

The nature of injustice is that we may not always see it in our own times. The generations that wrote and ratified the Bill of Rights . . . did not presume to know the extent of freedom in all its dimensions, and so they entrusted to future generations a charter protecting the right of all persons to enjoy liberty as we learn its meaning. When new insight reveals discord between the Constitution's central protections and a received legal stricture, a claim to liberty must be addressed.⁴⁸

Today I am telling you, Judge Aiken was right: "the right to a climate system capable of sustaining human life is fundamental to a free and ordered society."

I didn't become a climate activist because I like shouting outside of Government buildings or because I want to put my body on the line to block a tar sands pipeline.⁴⁹ I became a climate activist because I know that it is my moral responsibility to do everything in my power to stop catastrophic climate change. Your generation and the ones before you, sitting in your seats in positions of power, have decimated our planet. My words stand before you, representing the voices of millions of children, youth and future generations, who are trying to clean up the mess of our forebears. For years, the federal government and the same adults who created the disaster

⁴⁷ Exhibit M, p. 4.

⁴⁸ Exhibit S.

⁴⁹ Today, April 2, 2019, Judge Mary Ann Driscoll of Boston, MA just found that 13 people acting in civil disobedience to protect our climate from more fossil fuel projects were found not responsible in light of their necessity defense that their actions were necessary to protect life. http://www.climatedisobedience.org/raw_audio_westrox_climatetrial_27march2018.

have marginalized us. No more. Climate change is here now. Waiting for the future is already too late.

It is clear: Without youth leadership and a constitutional guidepost, legislative efforts won't save us in time. The Executive Branch won't even fully admit climate change is real, and its leaders do the bidding of the fossil fuel industry. Half measures and incrementalism will only modestly delay the worst impacts of climate change. If we want a future worth living, all three branches of our federal government must recognize our unalienable rights are at stake and work with the youth at the forefront of this movement, to guarantee that the constitutional right to a stable climate is recognized and protected in the United State of America.

Forget about being on the right side of history. If there even *are* history books, it will be because of the efforts that we are taking today. Be on the side of young people right now. Act as if our fundamental rights to life, liberty, property and equal protection under the law are as important as yours, those who came before us, and those who will come after us. We are all connected, and the work you do during your terms in this powerful office, should be on the right side of the youth who sit before you and we ask you to stand with us.

That is why I am asking all of you and this entire House to endorse the fundamental rights and the remedy sought in *Juliana v. United States* on the record, and to sign on to amicus curiae briefs in support of me and my co-plaintiffs, as your other colleagues have, including Senators Ron Wyden, Jeff Merkley, and Sheldon Whitehouse, and Representatives Debra Haaland, Peter DeFazio, Earl Blumenauer, and Rashida Tlaib.

We all have a moral imperative. And you have a constitutional one. If not us, then who? If not now, then when? If not for me, do it for your children, and your children's children, and for all life as we know it. Do it because when you took office, you made an oath "to uphold our Constitution and "secure the blessings of liberty to ourselves and Our Posterity."

I will do my best to address any questions that you may have.

Thank you,

A handwritten signature in black ink, appearing to read "Aji Piper", with a long horizontal flourish extending to the right.

Aji Piper
Seattle, Washington
Plaintiff, *Juliana v. United States*
Beneficiary of the Public Trust and the U.S. Constitution

EXHIBITS

- Exhibit A Urgent Motion for Preliminary Injunction
- Exhibit B Declaration of Kevin E. Trenberth in Support of Urgent Motion for Preliminary Injunction
- Exhibit C Declaration of Mark Z. Jacobson in Support of Urgent Motion for Preliminary Injunction
- Exhibit D Declaration of Jerome A. Paulson in Support of Urgent Motion for Preliminary Injunction
- Exhibit E Declaration of Peter A. Erickson in Support of Urgent Motion for Preliminary Injunction
- Exhibit F Declaration of Ove Hoegh-Guldberg in Support of Urgent Motion for Preliminary Injunction
- Exhibit G Declaration of Steven W. Running in Support of Urgent Motion for Preliminary Injunction
- Exhibit H Declaration of Eric Rignot, Ph.D in Support of Urgent Motion for Preliminary Injunction
- Exhibit I Declaration of Joseph E. Stiglitz, Ph.D in Support of Urgent Motion for Preliminary Injunction
- Exhibit J Declaration of James H. Williams in Support of Urgent Motion for Preliminary Injunction
- Exhibit K Declaration of Vice Admiral Lee Gunn, USN (Ret.) in Support of Urgent Motion for Preliminary Injunction
- Exhibit L Declaration of Dr. James E. Hansen in Support of Urgent Motion for

Preliminary Injunction

Exhibit M	Expert Report of Lise Van Susteren, M.D.
Exhibit N	Brief of <i>Amici Curiae</i> Public Health Experts, Public Health Organizations, and Doctors
Exhibit O	Brief of <i>Amicus Curiae</i> Law Professors
Exhibit P	Appellants' Opening Brief for Interlocutory Appeal
Exhibit Q	Plaintiffs-Appellees' Answering Brief for Interlocutory Appeal
Exhibit R	Findings & Recommendation, Thomas M. Coffin (May 1, 2017)
Exhibit S	Opinion and Order-MTD, Ann Aiken (November 10, 2016)
Exhibit T	Opinion and Order-MSJ, Ann Aiken (October 15, 2018)
Exhibit U	Corrected Expert Report of James Gustave ("Gus") Speth
Exhibit V	Executive Summary of EER Research
Exhibit W	Declaration of Jayden F. in Support of Plaintiffs' Opposition to Defendants' Motions Dismiss
Exhibit X	Declaration of Aji P. in Support of Plaintiffs' Urgent Motion for Preliminary Injunction
Exhibit Y	Declaration of Levi D. in Support of Plaintiffs' Urgent Motion for Preliminary Injunction
Exhibit Z	Expert Report of Dr. Harold R. Wanless
Exhibit AA	Expert Report of Andrea Wulf

- Exhibit BB Clinton P. Anderson letter to President Kennedy (February 14, 1961)
- Exhibit CC Daniel P. Moynihan memo to John Ehrlichman (September 17, 1969)
- Exhibit DD First Amended Complaint for Declaratory and Injunctive Relief
- Exhibit EE Appellants' Reply Brief for Interlocutory Appeal
- Exhibit FF Federal Defendants' Answer to First Amended Complaint for Declaratory and Injunctive Relief