

**CLIMATE CHANGE MAINTAINABILITY WILL
 CONSTRUCT AN EMPIRE IN WHICH THE
 CONCRETE NEVER SETS, CAUSING CONCRETE
 INJURIES NECESSITATING JUDICIAL RELIEF,
 AND THEN, BUILDING UPON SUCH RELIEF,
 CREATIVE EXECUTIVE AND LEGISLATIVE REFORMS**

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I. INTRODUCTION:
 THE NEED FOR UNDERSTANDING CONCRETE
 CLIMATE CHANGE STANDING

While awaiting governmental action to recognize, address, and solve climate change issues, we must acknowledge that the facts and disasters on the ground (such as flooding and rising tides)¹

1. Flooding is only one of many climate change conditions. This article primarily focuses on flooding in Florida. But, it is likely to occur in most, if not all, areas (although in

require resolution. To rise above such disasters, construction using—continually improved by emerging technologies²—will raise new infrastructure, new disputes, and varying issues regarding property and legal interests causing concrete injuries. By default of the federal executive and legislative branches, the judicial branch is increasingly the source sought for relief.³ As the U.S. Supreme Court held, in *Spokeo, Inc. v Robins*, No. 13–1339, 578 U.S. ___; 136 S.Ct. 1540, (2016) (hereafter “*Spokeo*”), the Constitution’s “case or controversy clause” requires any plaintiff in federal court to allege an injury-in-fact that is “concrete and particularized”.⁴ The Court stated that “concrete” injury, as defined in dictionaries, must exist:

A ‘concrete’ injury must be ‘*de facto*’; that is, it must actually exist. See Black’s Law Dictionary, 479 (9th ed. 2009). When we have used the adjective ‘concrete,’ we have meant to

different types of circumstances). See, *eq.*, Patricia Cohen, Where Floods of ‘Biblical Proportion’ Drowned Towns and Farms, N.Y. TIMES, July 31, 2019, at B1, “This is biblical proportion. Nothing like this has ever been seen[.]” (describing the impact of flooding in the lower Mississippi Delta). Flooding is a major threat due to climate change, but there are other threats too: “climate change is increasingly turning the extraordinary into the ordinary. Extreme floods and snowfall, at times, moving to extreme heat and droughts, are forcing cities and farming communities across the country to grapple with the threat to their homes and livelihoods.” *Id.* This article, as noted, also uses Florida as an example since it currently illustrates flooding issues and projects to solve such issues in terms of science, technology, construction proposals and varied community responses. However, the other climate change threats, while mentioned here, may require analysis. Since some concepts may apply to different threats, this article intends to offer ideas for the types of solutions that may assist.

2. Concrete was invented by the Romans who used “seawater concrete” for their coastal buildings, many of which still stand. Jack Brook, *Miami Beach dock uses seawater to create a new concrete mix*, MIAMI HERALD, Nov. 18, 2019, at 3A, noting that “recently, the Florida Department of Transportation cut the ribbon on the \$7.6 million 180 foot-long Halls river Bridge in Homasassa Springs on the west coast made using seawater concrete and fiber reinforced polymer.” See also, Amos Zeeberg, *Bricks Alive! Scientists Create Living Concrete*, N.Y. TIMES, Jan. 15, 2020, at D6, discussing a new technology for making concrete and noting: “[now an interdisciplinary team of researchers at the University of Colorado, Boulder, has created a rather different kind of concrete – one that is alive and can even reproduce.” The new concrete, unlike most concrete, does not require “virgin sand that comes from rivers, lakes and oceans, which is running out worldwide, largely because of the enormous demand for concrete.” Limestone is a source for concrete that enabled highways and driveways and was the basic ingredient for Florida’s geological rising from the sea millions of years ago. MICHAEL GRUNWALD, THE SWAMP: THE EVERGLADES, FLORIDA, AND POLITICS OF PARADISE 15, 17 (2006) (“The Swamp”).

3. LINDA TSANG, Cong. Research Serv., R44807, U.S. Climate Change Regulation and Litigation: Selected Legal Issues (2017), noting that [c]limate change litigation may potentially increase,” but also noting that “[f]ederal courts often do not reach the merits of climate change suits due to threshold procedural and jurisdictional barriers, such as whether a plaintiff or petitioner has the right to bring a lawsuit in the first place, or whether the court has jurisdiction over a type of claim.”

4. *Spokeo, Inc. v. Robins*, No. 13–1339, 578 U.S. ___; 136 S.Ct. 1540, slip op. at 8 (2016) [hereinafter *Spokeo*]. *Spokeo* analysis cited, and relied on, environmental standing cases, as well as other cases in other areas of the law. *Spokeo* was not an environmental case. See, *eq.*, Michael G. McLellan, *Finding a Leg to Stand on: Spokeo, Inc. v. Robins and Statutory Standing in Consumer Litigation*, 31 ANTITRUST 49, 53 (2017). *Spokeo* alleged that a web based “people search engine” violated the Fair Credit Reporting Act, 15 U.S.C. § 1681, *et seq.* The analysis of the Court “only affects Article III Standing: “the constraints of Article III do not apply to state courts...”

convey the usual meaning of the term—‘real,’ and not ‘abstract.’ Webster’s Third New International Dictionary, 472 (1971); Random House Dictionary of the English Language 305 (1967). Concreteness, therefore, is quite different from particularization.⁵

*A. The Need For Human Evolution, Evaluation, and
Understanding of Climate Change*

When humans lived in caves, we were more aware of external climate conditions. We feared the elements—thunder, lightning, fire, winds, rain, storms, typhoons, hurricanes, and earthquakes. Fear drove us, as we evolved, to seek and build better shelters and protections. We did so. Evolving civilization eliminated many discomforts of nature and, now, often hermetically constructed structures seal us off from appreciating and understanding our environment. We also, increasingly, rationalize that climate changes and natural disasters are random and remote. Just as we have a “drive-by” society, which may cause “rubbernecking” to glimpse disasters, for the most part we have a “move-on” society and often avoid learning from such glimpses.⁶

Some who deny any scientific basis for climate change simultaneously, and inconsistently, suggest technological improvements will solve climate change problems if and when they become a threat. Others who suffer, experience, and appreciate

5. *Spokeo*, No. 13–1339, slip op. at 8. In *Spokeo*, the term “particularized” was described as follows: “[I]t ‘must affect the plaintiff in a personalized way.’” The Court recognized that Petitioner Robbins was the individual involved and his rights were “violated”—so he had a stake that was “individualized rather than collective. However, that ‘stake’ did not create an existing injury that was ‘concrete’ as opposed to a ‘bare procedural violation’ divorced from any concrete harm.” *Spokeo*, No. 13–1339, slip op. at 7–9. Robbins had alleged *Spokeo* had stated incorrect information about him, but he did not show concrete harm and even if there were a failure to provide required accurate information about Robbins as he alleged, the Court stated that did not show “harm”. *Spokeo*, No. 13–1339, slip op. at 10. The Court stated: “[i]n addition, not all inaccuracies cause harm or present any material risks of harm. An example that comes immediately to mind is an incorrect zip code.” *Spokeo*, No. 13–1339, slip op. at 11.

6. See Nathaniel Rich, *Climate Change and the Savage Human Future*, N.Y. TIMES, Aug. 2019, at 1; see also Nathaniel Rich, *Losing Earth: The Decade We Almost Stopped Climate Change*, N.Y. TIMES, Aug. 2018, at 78. The author notes: “[i]n the beginning, human beings tended to view nature as a mortal enemy.” Now, after our perception of threats “flipped” we are reconsidering our belief in “using the powers of wizardry”. Additionally, see Alex Harris, *U.S. Report climate change already affects Florida: the Fourth National Climate Assessment is the most comprehensive report on climate change ever released*, MIAMI HERALD, Wed. Nov. 28, 2018, at1A, noting: “[c]limate change is already impacting Americans, and if nothing is done, it will devastate the economy and disrupt millions of lives . . . of course the latest 600 pages of the national climate assessment won’t be enough to change the minds of hardened climate change deniers.” The article states “most notably” after the “alarming findings,” President Trump “dismissed the work of his own government, saying: ‘I don’t believe it.’”

problems may want to avoid new taxes government will impose to make changes that protect them but also protect many others not paying their share in their localities and around the world.⁷

As examples, some French yellow vests protested increased French fuel taxes on polluting fuel designed to protect the environment. Although they agreed that fuel pollution reduction may be necessary to protect the environment, and some claimed to be environmentalists, yellow vests protested due to their needs for cheap fuel to drive to work.⁸ This type of conduct occurred elsewhere.⁹ Canadians in many provinces voiced concerns about paying, debts of others due to rising taxes for climate change improvements.¹⁰ The United States, of course, is a world leader in its refusal to recognize climate change. It “withdrew” from the Paris climate change efforts.¹¹ Many do not recognize the validity of

7. See Ian Austen, *Too Strict, Too Lax - Trudeau's Carbon Tax Push Has Critics on All Sides*, N.Y. TIMES, Dec. 10, 2018, at 1A, noting that Canada joined the Obama Administration on efforts to limit methane leaks by increasing taxes but faced a backlash: “[t]he thing about climate change is that it’s much harder to fix than other issues . . . [t]hat allows critics to point to any one, single policy and say: That’s not going to fix’ the problem. Why don’t we give up?”

8. See Neil Gross, *The Class Divide on Sewing the Planet*, N.Y. TIMES, Dec. 16, 2018, at 2. Though the tax (an increased tax on gasoline) was favored by Parisians, who have access to efficient public transportation, it was seen as a provocation by struggling residents of the country’s rural and suburban areas. The article notes the French public is now “sympathetic” to the protesters, known as the “Yellow Vests” who wear yellow day-glo vests that drivers are required to have in their vehicles for safety reasons. The article continues: “[e]nvironmentalists insist that there is no reason in principle why a more effective communications strategy could not be found to pull together urban dwellers and the rural-working and lower-middle class in a broad environmental condition. The fact that the French public is sympathetic to the cause of the Yellow Vests but also concerned about the climate shows the protests were never really about the environment in the first place.” The article notes this argument “understates” the “magnitude of the problem the environmental movement now confronts.” The article concludes that “Yes, contrary to the theory of post materialism, the well-off aren’t the only ones who care about climate change and the environment. Yet, in many of today’s capitalist democracies, class and status resentments, fostered by rampant inequality and whipped up by opportunistic politicians, have developed to such an extent that issues like the environment that affect everyone are increasingly seen through the lens of group conflict and partisan struggle.

9. See Michael Kimmelman, *A movement in France Grows Out of a Crises of Mobility*, N.Y. TIMES, Dec. 21, 2018, at 4A, noting: “[i]t is easy to forget that a gasoline tax set this all off. A few cents per liter at the pumps. A step to address climate change, according to President Emmanuel Macron. Of course, that’s not how millions of workers who depend on their cars saw it. Mobility is the story of globalization and its inequities. Mobility means were the trains, planes and automobiles, after all. It also includes social and economic mobility—being too poor to afford a car, being rich enough to transfer money out of the country. These are all inextricably linked. Weeks of protests by the Yellow Vests have made that clear.” The article also notes that the “train system is inadequate and in debt; and with service atrophying people need their cars. As one Yellow Vest protester stated, “I am a strong environmentalist. Everybody here is.”

10. See Austen, *supra* note 7.

11. See Lisa Friedman, *U.S. Prepares to Officially Withdraw From 2015 Paris Climate Accord*, N.Y. TIMES, Oct 24, 2019. Although withdrawal intricacies were perhaps not appreciated by President Trump when he announced it on Wednesday, Oct. 23rd 2019, “he sounded as if” the U.S. was already out of the accord: “‘I withdrew the United States from the terrible, one-sided climate accord, was a total disaster for our country’, he told a crowd of cheering men and women in hard hats Wednesday at a natural gas conference in Pittsburg.”

climate change science, even when they live in areas where they observe rising flood waters due to full moon tides, which are not caused by rain or storm events.¹² Today, due to the COVID pandemic, we are more aware of our fragility.¹³ However, our COVID reactions show that complexity in our lives even causes complex disagreements due to human frailties and reactions too.¹⁴

Climate changes were with us and present long before COVID; but its causes are contested and complex. We are told that:

1. Our carbon footprints increasingly tread on our atmosphere, as is reported by global scientific studies and narratives of our understandings.¹⁵
2. Glaciers on land (in the Arctic, Antarctic, Greenland and other locations), as a result of climate warming, have been melting, breaking off land shelves, moving the weight of ice into the oceans and, gradually, raising sea levels.¹⁶

12. See Patricia Mazzi, *2 Days Under Water: Tide is High, but They're Holding on*, *Fall Flooding Imperils Florida Communities*. N.Y. TIMES, Nov. 25, 2019, at 10A. Describing the “King Tides,” the article states: “[l]ife during the unusually high ‘king tides’ in South Florida this fall has become a maddening logistical task for people along Blackwater Sound, a scenic but low-lying stretch of the Upper Keys. For nearly three months the residents of Stillwater Point’s 215 homes have been forced to carefully plan their outings and find temporary work-arounds to deal with the smelly stagnant water—result of not rain, but a rising sea—that makes their mangrove—lined streets look more like canals.” The article noted also that “king tides” take place predictably each fall, when the alignment of the moon, sun and earth creates a stronger gravitational pull on warm oceans. Rising sea levels caused by climate change make the flooding worse. Tides from “the Carolinas to Florida and from the Florida Keys to Tampa have been six to 18 inches higher than expected.”

13. See Ross Douthat, *Why the Coronavirus is Winning*, N.Y. TIMES, June 7, 2020, at 11. “The only thing it wants is targets, ‘a George Mason University Ph.D. candidate on computer virus wrote of the coronavirus in March. ‘It does not think’ he went on, ‘it does not feel, and it lies totally outside the elaborate social nuances humans have carved out through patterns of communication, representation and discourse. And this above all else it makes it a lethal adversary for the West. It has exposed how much of Western society—is permeated with influential people who have deluded themselves into thinking that their ability to manipulate words, images and sounds gives them the ability to control reality itself.”

14. *Id.*

15. See Rich, *Losing Earth*, *supra* note 6, at 94, noting: “[e]veryone knew—and we all still know. We know that the transformations of our planet, which will come gradually and suddenly, will reconfigure the political world.”

16. See Kendra Pierre-Louis, Henry Fountain and Denise Lee, *A Melting Antarctica, As Never Seen Before*, N.Y. TIMES, May 5, 2020, at 2D, discussing data in a paper by Helen A. Fricker in the journal *Science*. Data from the “Ice, cloud and land Elevation Satellite—2” launched in 2018 as part of NASA’s Earth Observing System notes that: “[f]loating ice is lost in two ways: by calving of icebergs and through melting underneath by a deep current of warmer water that circulates around the continent. Floating ice is, by definition, already in the water, so when it calves, or melts, it does not add to sea level rise. But ice shelves act as buttresses against the ground ice behind them, when they thin, they allow the ice to flow faster. And when the previously grounded ice reaches the water, it adds to the rising seas.” Using their data, the researchers found that “Greenland is losing about 200 billions of tons of mass each year on an average. That is enough to raise sea levels by about eight millimeters, or a third of an inch, over the study period.”

3. High, full moon, tides due to rising sea levels overflow uplands in many areas.¹⁷

4. Climate changes can also involve rain, flooding (and growth of foliage) followed by drought (converting foliage into tinder) and danger of large uncontrollable fires and resulting financial risks due to loss of values.¹⁸

Our efforts to solve climate changes and recognize related problems, even when they cause visible and threatening changes, such as waters rising above, and flooding uplands,¹⁹ are often insufficient and counterproductive too.

To prevent high tides from flowing up into sewage outflows (converting them into “inflowing conduits causing flooding), and flooding streets, raised seawalls, streets, and reverse flow valves may be used to prevent inflow from waters into sewers. The valves may only allow one-way drainage out of sewers. However, this does not always work. When tides are higher than even the raised seawalls, water still may flow over seawalls and may still flood lower properties or be impounded by the higher seawalls and streets and continue flooding longer.²⁰ However, raising of seawalls only

17. See Jessica Trufant, *Even in good weather, tides increasingly flood communities*, THE PATRIOT LEDGER, Dec. 8, 2019, noting: “[t]he East Coast is on a pace for record-breaking tides this year, and tides along the gulf coast also are tending higher said William Souset, a National Oceanic and Atmospheric Administration Oceanographer” . . . [w]hether “it’s the king tide in Miami or the subtropical storm off the northeast coast, this is to be expected. What we predicted is occurring. The future is here.” The article noted tide levels were also higher off the Gulf Coast. This flooding is happening along the coastline. NAT’L OCEANIC AND ATMOSPHERIC ADMIN. TECHNICAL REPORT NOS CO-OPS 090, 2018 STATE OF U.S. HIGH TIDE FLOODING WITH A 2019 OUTLOOK, 1–2. (2019).

18. See Christopher Flavelle, *Rising Seas Threaten an American Institution: The 30-Year Mortgage*, N.Y. TIMES, June 20, 2020, at 21A. The article notes that “climate-induced risk” is not only along the nation’s rivers and coasts, but also in the west, where “the growing danger of wildfires is already making it harder for homeowners to get insurance.” It also states: “[c]hanges to the housing market are just one of the myriad ways global warming is disrupting American life, including spreading disease and threatening the food supply.” The article discusses the “nonconventional mortgage” where down payments in certain areas due to “rising seas” are between 21 percent and 40 percent. The article notes: “in St. Johns County, Fla., south of Jacksonville, between 2006 and 2017, the share of nonconventional loans in the most vulnerable areas increased by 6 percent, while falling 22 percent in the rest of the country.” The article ends with a question by Carolyn Kousky, executive director of the Wharton Risk Center at the University of Pennsylvania: “[w]hat happens when the water starts lapping at these properties, and they get abandoned?”

19. *Id.*

20. See Joey Flechas, *South Beach restaurant denied flood insurance after city raised street*, MIAMI HERALD, Nov. 17, 2019, at 1A, “Miami Beach has spent tens of millions raising streets [and seawalls] in the low-lying Sunset Harbour neighborhood to prevent rising tides from flooding the area. That left some establishments a few feet down at a lower sidewalk level.” When the floods caused damages to a restaurant, insurance was denied because the lower restaurant compared to the elevated streets became a “basement”. The City “might not have realized the unintended consequences”—now recognized by all in the City as a result — “of raising the road.” The Federal Emergency Management Agency, (“FEMA”) did not initially respond although it makes “all coverage and claim decisions”. The City maintained that its pumps designed to eliminate such problems that higher street elevations might cause were intended to solve the problem but had failed to work. Before, when streets were flooded in

works as long as continued construction raises them higher than rising tides. When waters flow over sea walls and the flooding subsides, the higher seawalls in the absence of reverse flow valves at higher and graduated levels may impound and cause the water to back up. Seawalls and protective berms may prevent abating of flood waters, and contrary to intentions create flooding of lower properties.²¹

When the roadways for cars and trains are blocked by flooding, and then later seawalls block abatement of flood waters, road levels are often raised to enable necessary transportation. However, road levels raised above adjacent lands act may as berms, or dams, too. Intermittent flooding can be caused where the roads cut off drainage. Often, high roads retaining water may cause flooding of adjacent properties and structures.²²

Elevating building sites and structures is often piecemeal. It may not be feasible as an instant and immediate process and is often blocked by inability to achieve common consent to a comprehensive plan. This is because the gradual raising of some property often causes the property raised to cut off flow, and flood other adjacent, lower, property. There are needs for requirements for unified efforts, that involve continuity and community planning and consent, which may solve problems in a more comprehensive way (although this may depend on the size and willingness of the community involved).²³

In certain developed areas, efforts to prevent development of traditionally sensitive wetlands involve restrictions, or historic preservation interests, or worse, lack of restrictions on property rights. There are resulting claims by developer owners, that

2009, the owner said, “he got a check two days after the adjuster saw the property.” The claim was ultimately resolved by a settlement in Dec. 2019. See Joey Flechas, *Restaurant’s Flood claim approved after a long 14 months*, *Miami Herald*, Dec. 16, 2019, at3A. The City assisted in settlement and in the process “many homeowners . . . pointed to . . . the situation while sharing skepticism of an anticipated \$100 million project to raise roads and install pumps.

21. See Alex Harris, *Surfside prepares for sea level rise with new resilience fund*, *MIAMI HERALD*, Dec. 22, 2019, at1A, discussing flooding over existing seawalls in need of elevation causing water overflowing yards of homes and the need for increasing seawalls and higher buildings; and describing one resident who cannot afford to fix her seawall being forced “to sell the home she’s lived in for 53 years, the one she had planned to die in.”

22. See Alex Harris, *For a tiny village, a big problem. How does a chain of man-made islands survive sea rise?*, *MIAMI HERALD*, Oct. 24, 2019, at1A., explaining that, “[s]ea levels are rising, threatening the small but prosperous man-made islands. In response, North Bay Village is devising a plan to keep its 9,100 residents dry until the end of the century. ‘We’ve risen out of the bay one time in our history. There’s no reason why we can’t rise above the water again,’ said mayor Brent Latharn.” The answer is elevation. Every restaurant, condo, house and road needs to come up, and so do the seawalls flanking the islands. “‘You have to let the market work its magic,’ Latharn said.” The idea of retreating and relocating was not considered . . . [t]he idea of leaving the little Islands on the bay never came up at the community round tables.” One owner stated: “I don’t have an escape plan” and “I don’t want to leave. I want to be a part of the solution. I want my son to grow up in the family home”

23. *Id.*

property restrictions (or the lack of protections) against flooding due to other reasons are “takings.”²⁴ Alternatively, when such, new developments are permitted, those new owners (who purchased former, or new, wetlands) ironically have contested the zoning and the planning that put them in jeopardy—causing arguments of another type of “inverse taking.”²⁵

Relocating, does not cure the problem. Those relocating may reduce tax bases and funding in the locations deserted necessary to address problems effectively at those locations. Those relocating often go to so-called “safer areas,” which they feel are high and have water and other resources, or will be converted to more favorable conditions due to climate change.²⁶

But, they may arrive and find that, just as they move, climate change and impacts have moved after them or may continue moving and changes may be less predictable.²⁷ Climate changes may not

24. See Kyra Gurney and Alex Harris, *Can Neighborhood preserve its history and also protect itself from sea level rise?*, MIAMI HERALD, May 2, 2018, at 1B, stating “[i]n Miami Beach’s flood-prone Tatum Waterway neighborhood, some property owners worry that plans to designate the area a historic district could make it harder to prepare for sea level rise. Preservationists argue that preserving the area’s historic gems and a historic designation to safeguard it, is worth the effort.” Noting the concerns of a purchaser of a waterfront apartment, “in the hopes of demolishing it and building a new structure with [Miami-Modern] characteristics.” The floor “recently collapsed in one apartment, which . . . an engineer determined was the result of years of water damage.” The owner said he did not “agree with the City’s designation of the building as ‘contributing’ to the historic character of the neighborhood.” He said it was a neighborhood “built quickly and cheaply over a three-month period in the late 1940s and described it as a ‘manufactured home’ of the time,” and that “designating the whole area historic could take away his rights as a property owner including the right to demolish the building. ‘I think the preservationists are trying to preserve everything without any distinctions . . . [w]e should pay homage to the DNA of MiMo and not be held hostage to the past.’”

25. *Id.*

26. See Christopher F. Schuete, *In Germany, a Reason To Toast Climate Change—Hotter Seasons Are Boom to Vintners*, N.Y. TIMES, Jan. 20, 2019, at 11, “[w]e are the big winners from climate change” said Dirk Würtz, a vintner and wine journalist. “I know its disgusting to say but it’s the truth. Just as they have elsewhere in Europe, summers in Germany have been steadily getting warmer and longer, leading to grapes that ripen sooner and more reliably. In a northern European county where getting even a white grape variety to ripen during a normal growing season was a challenge, as recently as three decades ago, the shifting weather now allows for a greater variety of grapes in more places.” The article goes on to note the negative effects of climate change, specifically that, “[t]he warmer weather has also made it increasingly difficult to produce the most classic of German wines—the dry, light, fresh Riesling. ‘We ignored it at first because it was so good for the quality of the wine’ said Prof. Monika Christmann, the head of Geisenheim University, one of three German Universities specializing in wine, about the negative effects. But now it’s becoming a touch too much.” The article continues, “and while the new summers tend to be hotter and more favorable to grapes, they are also more chaotic, meaning vintners have to deal with freak weather effects.”

27. See Jacof Bunge, *A Warming Brings New Crops to Frigid Zones*, WALL ST. J., Nov. 25, 2018, at 1A, noting that “[t]he new prospect of warmer-weather crops is helping lift farmland prices, with an acre near La Crete [Alberta] selling for nearly five times what it fetched ten years ago. One reason is the warming planet and longer growing seasons. Temperatures around La Crete are 3.6 degrees Fahrenheit warmer on average annually than in 1950, Canadian federal climate records show and the growing season is nearly two weeks longer.” The article notes “density change-driven heat, droughts and soil erosion will likely

only cause weather patterns to the benefit of new crop varieties, but disadvantages of new droughts, fires and mudslides.²⁸ More remote areas often lack the tax base and infrastructures to deal with, and resolve, problems caused by flooding fires and climate change casualties.²⁹

Elsewhere, speculation in “high and dry” lands in poor communities referred to as “climate gentrification”,³⁰ or remote agricultural property with water³¹ may promote additional

diminish U.S. agricultural production” but “[a]mong the most striking effects on agriculture is the farm belt’s shift northward. The leading edge is in Canada.” There are other effects too: “[i]f climate change simply meant warmer temperatures, it would be a big boost to Canadian farmers, Mr. Vermeer said. But unusually long dry spells and harsher terms may also make farming more uncertain. ‘It’s a tough one, because how do you predict it?’” *Id.*, at 1A. *See also* “Warming temperatures are expanding regions suitable for wine grapes, according to a 2018 study in the *Journal Nature Climate Change*. That may require vineyards in places like France to switch to more heat tolerant varieties grown in Greece, said Elizabeth Wolkovich, a University of British Columbia Associate Professor who lead the study.” *Id.*, at 6A.

28. *Id.*

29. Alyson Krueger, *Real Estate Climate Change Escape Plans*, N.Y. TIMES, Dec. 2, 2018, at 10B, noting that “hedging against climate change with an isolated home on a piece of land isn’t a failsafe strategy.”

30. *See* Nadeque Green, *Climate Gentrification Elevation that protects against Sea level rise is becoming a factor in neighborhood investment*, MIAMI HERALD, Nov. 10, 2019, at 1C–2C, noting: “[a] building boom is happening all over Miami, including in low-lying areas, but some experts say sea-level rise is speeding up gentrification on high-elevation communities that have seen very little investment from the outside. The ‘climate gentrification’ theory was put into sharp focus by Harvard researcher Jesse Keenan, who looked at how single-family homes in Miami-Dade County’s higher-elevation neighborhoods were gaining value while lower elevation properties seemed to be under performing since 2000. Keenan hypothesized that, as more consumers chose to avoid the risks and nuisances of flooding, gentrification in high elevation communities will accelerate.” Keenan stated of his study: “[i]t exposes lots of other parallel challenges and structural fissures in our society.” This article describes “climate gentrification” only now being appreciated as an issue in our society. It states: “[i]n many other parts of the country, predominantly black communities were relegated to low-lying flood prone areas largely because of racist and exclusionary housing policies.” However, in South Florida, the opposite was true. Segregation and redlining put black communities inland on higher-elevation land while white communities coveted and built in low-line, waterfront areas.” The article also states: “[t]he predominantly black inland communities just west of where the railroad tracks were built—along the limestone ridge” were also cut through and used for interstate highways. Some residents anticipated this. A climate activist living in such a high black area stated: “[m]y grandfather, he always would talk to us like ‘they gon’ steal our communities because it don’t flood.”

31. *See* Russell Gold, *Harvard Amasses Vineyards-and Water: A bet on climate change in California gives it Agricultural Land and the rights below*, Wall St. J., Dec. 11, 2018, at 1, discussing Harvard’s endowment management, which since 2012 “was stealthily building a sizable grape-growing business on the Central Coast [of California] through entities, including Brodiaea [the endowment chosen instrument for land purchases]. With the land, it was acquiring rights to vast sources of water in a region where the earth’s warming is making the resource an ever-more valuable asset.” Comments showed a “backlash”: “[s]hould they be controlling our groundwater plans, said Debbie Arnold, a San Obispo County Supervisor, ‘I don’t think so,’ and “[e]ven though there aren’t many ways to make financial investments in water, investors are starting to place bets. Buying arable land with access to it is one way. In California’s Central Coast, ‘the best property with the best water will sell for record-breaking prices,’ says JoAnn Wall, a real-estate appraiser specializing in vineyards, ‘and properties without adequate water will suffer in value,’” and lastly “‘we’re having more heat and more drought,’ says Willy Cunha, a vineyard manager in the county. That has put a

inadequate infrastructures, and discrimination, as populations move.³² As a result of the foregoing, sometimes, the very residents who may benefit from raising roads, or other “improvements”, or climate change projects, may object to them for reasons involving their other concerns, that may range from interests such as historic preservation, to financial or self-interest, self-protection, or matters that stress and promote interests other than climate change protection (such as avoidance of disruption).³³

Because we do not recognize the scope and interrelationship of climate change problems, solutions often are as frustrating as trying to align rows of a Rubik's Cube—when as one row or line of problems is aligned, another is created. Analogies are more frequent than the solutions. We know that we are playing “musical chairs”, moving “deck chairs” from one location to another, and playing a form of “jenga,” or trying “to sort of fly the plane and fix it at the same time.”³⁴ We know the results of dealing with climate change may be prejudicial and discriminatory in many ways.³⁵

Climate change problems may require further movement in many areas and respects. However, ultimately, we can only move so far. As a consequence of the changes we are experiencing, we are beginning to see that we must address different issues arising at many different places.

premium on land with good water he says. ‘It is like California beach front property. God isn’t making anymore.’ Ironically, this old saying may no longer be true.

32. Somini Sengupta, *Seas at the Front Door - Climate Projections Become a Perilous Reality for Coastal Cities*, Feb. 15, 2020, at 5A. Comparing a rich metropolitan area (San Francisco) to a poor one (Manila), and noting the issue of retreating faces both. However, “managed retreat with armoring and other technological changes is more possible in San Francisco than in Manila, as the article notes, “[i]n both places, it turns out, how you face the rising sea depends mostly on the accident of your birth: [w]hether you were born rich or poor, in a wealthy country or a struggling one, whether you have insurance or not, whether your property is worth millions or is little more than a roof.”

33. See Gurney and Harris, *supra* note 24 (discussing types of interests).

34. See John Schawartz, *Lessons From Disaster: Cities must get ready for devastating weather, but realize that nature wins*, N.Y. TIMES, Dec. 13, 2018, at2F, discussing flooding and “the other effects of climate change, including the ways it boosts droughts, floods and wildfires” that “put more pressure on cities to adopt mitigate the effects of climate change and become resilient.” The Mayor of San Juan, Puerto Rico “says understanding the challenge doesn’t make it easy to address. ‘You have to sort of fly the plane and fix it at the same time.’”

35. See Sengupta, *supra* note 32, at 5A.

We must adjust to individualized circumstances and facts on increasingly wet, flooded, fire-prone, and dangerous, grounds. Such “adjustment” involves resolving individual and different disputes.³⁶ And resolving such disputes on a case-by-case basis is a judicial process.³⁷

*B. The Need for Judicial Understanding in
Interpretation and Construction of Climate Change*

Our courts are faced with being flooded by increased climate change litigation due to climate change and new issues caused by efforts to cope with such changes.³⁸ As noted, concrete is the best building material for new infrastructure. And decisions as to where and where not to construct will have consequences creating the type of *Spokeo* “concrete” injuries courts recognize.³⁹ They also will require judicial resolution of problems not yet being recognized and addressed by governments.⁴⁰ Increasingly, those who litigate may not just be primarily environmental groups, alleging standing because of statutory rights, use, trust concepts, natural damages, or environmental fiduciary obligations or common law theories. Experience shows that these theories have withstood the test of time—such as trespass, nuisance or negligence.⁴¹ Climate change litigants may increasingly be property owners with adverse claims against other property owners, insurance companies, and

36. Resolution of individual and different disputes has long been the function of the common law based on experience and incremental evolution as compared with legislative action, which is broader in scope but not always as available due to political differences. See OLIVER WENDELL HOLMES, *THE COMMON LAW*, 5 (Little Brown & Co, 1963) (1881). At the outset Holmes notes: “[t]he life of the law has not been logic; it has been experience. See also CLIFFORD RECHTSCHAFFEN AND DENISE ANTOLINE, *CREATIVE COMMON LAW STRATEGIES FOR PROTECTING THE ENVIRONMENT* at 11–50. The authors state at page 13: “[b]y its nature the common law is an incremental and evolutionary source of law, not necessarily the quickest or broadest solution for social ills, but perfectly suited for perpetuity. The common law’s virtuoso Justice Oliver Holmes saw the common law as a synthesis of social-political history and judicial legislation.”

37. See BENJAMIN N. CARDOZO, *THE NATURE OF THE JUDICIAL PROCESS*, 33 (The Legal Classics Library) (1982), “I [as a judge] am not to mar the symmetry of the legal structure by the introduction of inconsistencies and irrelevancies and artificial exceptions unless for some sufficient reason, which will commonly be some consideration of history or custom or policy or justice. Lacking such a reason, I must be logical, just as I must be impartial, and upon like grounds. It will not do to decide the same question one way between one set of litigants and the opposite way between another.”

38. See Flechas, *supra* note 20.

39. *Id.*

40. Lisa Friedman, *Trump Serves Notices to Quit Paris Climate Agreement*, N.Y. TIMES, Nov. 4, 2019, “[t]he Trump administration formally notified the United Nations on Monday that it would withdraw the United States from the Paris Agreement on climate change, leaving global climate diplomats to plot a way forward without the cooperation of the world’s largest economy.”

41. See Rechtschaffen and Antoline, *supra* note 36, at 11–50.

governmental entities.⁴² Even if governmental entities may have sovereign immunity protection and defenses, climate change litigation cases, among others, may increasingly raise and resolve the continuing and increasing concrete injuries involving a new type of climate change litigation. However, it will not relate to resolving, eliminating, or minimizing climate changes, but rather to solving claims of property owners' damages. The process will be paved with inconsistencies and problems.⁴³

*C. The Need for Understanding the Balkanization of the
Federal-State Judicial Process*

Litigation may solve disputes among property owners, but due to factors precluding standing of those who sue to prevent climate changes, such litigation will not in the foreseeable future address climate change causes. This is increasingly shown by case law involving the following factors:

1. Standing to access federal courts has become restricted by federal requirements for establishing concrete injuries—The United States Supreme Court in *Spokeo* declared access to the courts requires,⁴⁴ and will recognize, concrete injuries. There has not been extensive climate change litigation under the traditional constitutional and statutory as well as common law theories. But as noted, due to increasing concrete climate change problems, the parties may be different and more numerous (and, in time, may also present more cases in which there will be federal jurisdiction invoked for various reasons, now being declined).⁴⁵

42. See Flechas, , *supra* note 20.

43. *Id.*

44. See Flechas, *supra* note 20. *Spokeo, Inc. v. Robins*, 578 U.S.____, 136 S.Ct. 1540 (2016).

45. *Juliana v. United States*, 947 F.3d 1159 (9th Cir. 2020). The Ninth Circuit majority noted the “gravity” caused the dissent to “reframe the plaintiffs’ claimed constitutional right variously as an entitlement to ‘the country’s perpetuity’, but “[t]he court remanded with instructions to dismiss for lack of Article III standing.” *Juliana*, No. 18–36082, slip op. at 32. At this time, federal courts tend to deny jurisdiction sought by plaintiffs seeking broad relief due to, and to prevent, or minimize, climate changes. See *Residents Against Flooding v. Reinvestment Zone Number Seventeen*, Case No. 17-20373 (S.D. Tex. 2018), *cert. denied*. Residents could not sue Houston for infrastructure and damage from the conveyance of water out of commercial areas causing their residential neighborhood to flood, based on the Fourteenth Amendment of the U.S. Constitution and other theories. “[T]hese projects [of the City] were at least debatable rationally related to a legitimate governmental interest” and such actions “must be measured against the deferential ‘rational bases’ test that governs substantive due process.” *Residents Against Flooding*, No. 17-20373, slip op. at 5. The Fifth Circuit also ruled that there was no Fourth Amendment taking, or “seizure” since “A seizure requires intentional action.” The Fifth Circuit concluded: “A seizure does not follow from ‘unintended consequences of governmental action’ or ‘accidental effects of otherwise lawful governmental conduct.’”

2. State courts will become more accessible and active if, and as, federal courts seek to restrict federal controls and retreat from federal jurisdiction previously enabled by use of pre-emption and the “Supremacy” and “Commerce Clauses.” The state courts are more accessible and prepared to recognize new problems than federal courts at this date.⁴⁶ Governmental responsibilities are, and may continue to be Balkanized to deal with such problems.⁴⁷ The lack of federal controls may be supplanted by more state, regional, and local jurisdictional controls. The Supreme Court in *South Dakota v. Wayfare, Inc.* (hereinafter “*Wayfare*”), opened the way for such results (by allowing state taxing of internet commerce in states where there were no concrete structures).⁴⁸ Justice Ginsburg, although regarded as a liberal in favor of stare decisis and federal supremacy, joined the majority opinion. The majority reversed case precedent and allowed a state to tax, because of the new science (involving the internet) and recognition that new technological developments require new interpretations to protect state rights.⁴⁹

Contrary to prior preemption by federal powers over state statutes, the Court in *Wayfare* stated that the Commerce Clause has exceptions. The Court recognized that the “Balkanization fears” (created by the Articles of Confederation, which led to the Commerce Clause in the Constitution) did not, and should not, eliminate State sovereignty due to new and emerging conditions relating to states’ needs.⁵⁰ The Court overruled the “physical presence rule” as being an “unfounded” and “flawed” presumption.⁵¹

The Court rejected the concept of finding federal pre-emption because of an assumption that Congress approved of judicial preemptive rulings when Congress, after the opportunity and right to legislate and reverse judicial rulings, did not legislate

46. The willingness of state courts, in many areas of conflict that used to be preempted by federal courts, has been increasing for some time. See *e.g.*, Joseph Z. Fleming, *If Abraham Lincoln Died For Federalism, Did He Die in Vain? – Florida Prepaid Postsecondary Education Expense Board v. College Savings Bank and United States*. 4 THE URBAN LAWYER, 777 (1999); see also Joseph Z. Fleming *Balkanization of Aviation Regulatory Systems Has Created a New Fragmentation and Disruptive Policy*, 2 ISSUES IN AVIATION LAW AND POLICY 219 (2019) .

47. *Id.*

48. *South Dakota v. Wayfair, Inc.*, No. 17-494, 585 U.S. ___, 138 S.Ct. 2080, slip op. at 15, 22 (2018, finding state jurisdiction to tax internet sales due to the internet and “dramatic technological and social changes” of our “increasingly interconnected economy.” The Court found state ability to impose sales taxes even where there were no actual stores, or physical presence in the state since a “nexus is clearly sufficient based on both economic and virtual contacts respondents have with the state.”

49. *Id.*, at 5, 12, discussing “Internet technology” eliminating the need for “a physical presence” in order to impose a sales tax and also, “our increasingly interconnected economy.”

50. *Id.*, at 5.

51. *Id.*, at 18.

and prevent preemption. Congressional inaction was a “false constitutional premise of the Court’s own creation” that was not a proper reason for applying judicial preemption, and was not approved, according to the Court.⁵² Illustrations are:

1. Despite argument by Alaska Airline that binding arbitration under the Railway Labor Act (“RLA”) prevented state court jurisdiction over a federal statutory medical leave claim, in *Alaska Airlines, Inc., etc. v. Schurke, etc., et al.*, No. 13-35574 (9th Cir. 2017), *cert. denied*,⁵³ the United States Court of Appeals for the Ninth Circuit ruled that the state’s interest was enforceable and the federal requirements under the RLA did not arise “entirely from the CBA [(Collective Bargaining Agreement)] nor require a construction of it.”⁵⁴ So it did not preempt and prohibit State jurisdiction.

2. Tort claims against a manufacturer, due to its alleged faulty product, were allowed in the state court, although the manufacturer argued that the questioned specifications satisfied the federal requirements of the Federal Aviation Authority (“FAA”). The argument that the federal preemption should exist due to FAA regulation was rejected by the Court of Appeals for the Third Circuit in *Sikkelee v. Precision Airmotive Corporation* (hereinafter “*Sikkelee*.”)⁵⁵ Rollback of federal regulations regarding environmental jurisdiction may be reversed by rising waters and climate changes—courts will have to contend with unusual climate change issues, regardless of whether there are federal legislative and regulatory retreats.

II. THE NEED FOR JUDICIAL RECOGNITION OF CLIMATE CHANGE IMPACTS AND THE “TRADITIONAL COMMON LAW METHOD” OF “EVER MORE REFINED PRINCIPLES”

In those cases where regulations are proposed to restrict jurisdiction under the Clean Water Act by virtue of redefining the

52. *Id.*, at 18.

53. *Alaska Airlines, Inc. v. Schurke*, 898 F.3d 904 (9th Cir. 2018), *cert. denied*, involved the holding that the RLA did not preempt a flight attendant’s accrued vacation claim to care for her sick son because a CBA prohibited it. The Ninth Circuit held the State of Washington family law was independent of, and not related to, the CBA.

54. *Id.*

55. *Sikkelee v. Precision Automotive Corporation*, 907 F.3d 701, (3d Cir. 2018). The Third Circuit concluded that: “In addition, allowing state-law claims to proceed in this context complements rather than conflicts with the federal scheme.” *Sikkelee v. Precision*, No. 17-3006, 907 F.3d 701, slip op. at page 26. The Third Circuit concluded that: “state-law claims, such as *Sikkelee*’s, supplement the federal scheme and further its central purpose; safe aircrafts.”

“waters of the U.S.”, or “navigable waters”,⁵⁶ rising tides may inundate new areas of questionable jurisdiction. So, decreasing judicial jurisdiction is now confronted by rising waters. The result may force judicial recognition of new and rising waters of the U.S. Regardless of prior court cases and proposed regulations,⁵⁷ there are illustrations of wetlands increasing, because of the regularity of overflow in non-storm situations because of full moon flooding. Increasingly, in many areas of the U.S. (and world) a full moon rising brings fears of waters rising and damaging floods.⁵⁸

In a recent case, involving conveyance of pollutants to navigable waters before the Supreme Court, *County of Maui, Hawaii v. Hawaii Wildlife Fund* (hereafter “*Maui*”), there were issues as to the requirement of permits for outflow of effluent (and whether effluent flows beneath the ground, that ultimately connect to “waters of the U.S.,” require effluent permits).⁵⁹ Such cases as *Maui* are important and, also, may be “modified”, by rising tides. As an illustration, if you have a sewage plant disposal area on an “upland” adjacent to

56. Chris Wood, Collin O'Mare and Dale Hall, *Clean Water Endangered by Trump*, N.Y. TIMES, Feb. 10, 2020, at 25A, noting that in 2019, an entity involved known as Trout Unlimited “analyzed detailed United States Geological Survey stream and topographic maps and other resources” and that “Trout Unlimited’s research suggests that more than six million miles of streams, half the total in the United States will now be unprotected by the Clean Water Act, because they flow only after rainfall. More than 42 million acres of wetlands – again, about half the country’s total—will no longer be protected because they are not adjacent to larger waters.” This is attributed to “the EPA’s new policy” . . . “You need only consider the name to recognize what’s happening here. What was the Waters of the United States Rule is now the Navigable Waters Protection Rule.”

57. Christopher Flavelle, Denise Lu, Veronica Pennu, Nadia Popovich, and John Schwartz, *New Data Reveals Hidden Flood Risk Access America—nearly twice as many properties may be susceptible to flood damage than previously thought, according to a new effort to map the danger*, N.Y. TIMES, June 29, 2020, noting that a new calculation suggest millions of people are exposed to flood risks and “that new calculation, which takes into account sea-level rise, rainfall and flooding among smaller creeks not mapped federally, estimates that 14.6 million properties are at risk from what experts call a 100-year flood, from more than the 8.7 million properties shown on federal governmental flood maps.” A 100-year flood is one with a 1 percent chance of striking in any given year. The article states that: “[t]he federal government’s flood maps guide where and how to build, whether home owners should buy home insurance and how much risk mortgage lenders take on. The Federal Emergency Management Agency (“FEMA”) manages federal flood maps and ‘welcomed the new information’ stating ‘it would complement FEMA’s efforts’”. Once FEMA issues maps, as noted, they impact decisions regarding building and insurance and mortgages: “[w]hen FEMA does issue updated maps, politicians and homeowners often object, hoping to avoid higher flood insurance rates. ‘You can’t appeal your rate. You can only fight your map’ said Roy Wright who ran the National Flood Insurance Program until 2018. ‘It turns it into house-by-house combat.’” See also, Alex Harris, *Free app ranks flood risks for homes, neighborhoods*, MIAMI HERALD, June 30, 2020, at 1A, noting “some distressing findings for Florida since the cities with the most properties at risk are all over the state.”

58. *County of Maui, Hawaii v. Hawaii Wildlife Fund*, 140 S.Ct. 1462, Case No. 18-260, slip op., at 1, “we conclude that the statutory provisions at issue require a permit if the addition of the pollutants through groundwater is the functional equivalent of a direct discharge from the point source into navigable waters.”

59. *Id.*, at 3, “... a considerable amount of effluent from wells” into which a waste-water facility pumped “ended up in the ocean (a navigable water).”

waters of the U.S., due to rising tides, the “upland” may be subject to overflow and cause a direct connection, thereby, mootng any question of whether there were a conveyance below the prior existing upland land leading to waters of the U.S. requiring permitting.⁶⁰ The Court’s opinion in *Maui* is and will increasingly be important in climate change analysis:

We hold that the statute requires a permit when there is a direct discharge from a point source into navigable waters or when there is the *functional equivalent of a direct discharge*. We think this phrase best captures, in broad terms, those circumstances in which Congress intended to require a federal permit. That is, an addition falls within the statutory requirement that it be “from any point source” when a point source directly deposits pollutants into navigable waters, or when the discharge reaches the same result through roughly similar means.⁶¹ Time and distance are obviously important. Where a pipe ends a few feet from navigable waters and the pipe emits pollutants that travel those few feet through groundwater (or over the beach), the permitting requirement clearly applies. If the pipe ends 50 miles from navigable waters and the pipe emits pollutants that travel with groundwater, mix with much other material, and end up in navigable waters only many years later, the permitting requirements likely do not apply.

The Court noted there was a “difficulty” with its approach:

The difficulty with this approach, we recognize, is that it does not, on its own, clearly explain how to deal with middle instances. But there are too many potentially relevant factors applicable to factually different cases for this Court now to use more specific language. Consider, for example, just some of the factors that may prove relevant (depending upon the circumstances of a particular case): (1) transit time, (2) distance traveled, (3) the nature of the material through which the pollutant travels, (4) the extent to which the pollutant is diluted or chemically changed as it travels, (5) the amount of pollutant entering the navigable waters relative to the amount of the pollutant that leaves the point source, (6) the manner by or area in which the pollutant enters the navigable waters, (7) the degree to which the pollution (at that point) has maintained its specific identity. Time and

60. *Weyerhaeuser Co. v. U.S. Fish and Wildlife Service*, 586 U.S. ___, 139 S.Ct. 361 (2018).

61. *Maui*, 140 S.Ct. 1462, at 1476.

distance will be the most important factors in most cases, but not necessarily every case. At the same time, courts can provide guidance through decisions in individual cases. The Circuits have tried to do so, often using general language somewhat similar to the language we have used. And the traditional common-law method, making decisions that provide examples that in turn lead to ever more refined principles, is sometimes useful, even in an era of statutes.⁶²

The reasons *Maui* is, and will be, so important are that the Court required the type of fact evaluations and “the traditional common-law method” that are important in our complex, and evolving world. The common-law method uses hindsight for foresight—considering what is precedent for current and future guidance. In another case, also showing importance of climate change, the Supreme Court remanded an issue involving the definition of a habitat under the Endangered Species Act, in *Weyerhaeuser Co. v. U.S. Fish and Wildlife Service*, 586 U.S. ____ (2018), 139 S. Ct. 361, (hereinafter “*Weyerhaeuser*”).⁶³ A toad, which was an endangered species, moved, and an issue was raised as to whether the toad species’ prior habitat was paramount to its survival, and therefore had to be restored. Even if the answer were no, what will happen if, due to rising water, or fires, or other climate changes, new habitats were created for, and used by, such species?

Courts have not provided relief against governmental entities because of legislative immunity, in situations where plaintiffs argued they require the type of broad relief to avoid unacceptable consequences, that plaintiffs allege courts should address and resolve. The courts have often recognized plaintiffs’ claim of damages and unfairness, but have denied relief where courts concluded legislative, not judicial, action should be required. Illustrations are:

1. The U.S. Supreme Court denied certiorari in *Residents Against Flooding v. Reinvestment Zone No., 17*, ruling against plaintiff landowners claiming Houston violated their rights, because zoning placed them in areas

62. *Id.*

63. *Weyerhaeuser Co. v. U.S. Fish and Wildlife Service*, 586 U.S. ____ (2018), 139 S. Ct. 361 (2018). Finding the decision of the Fish and Wildlife Service Secretary not to consider “economic impact and relative benefits before deciding to whether exclude an area from critical habitat or to proceed with designation” was reversible error and “accordingly, remanded for further consideration of that question, if necessary, in the first instance.” *Weyerhaeuser*, 586 U.S. ____, No. 17-71, slip op. at 14-15.

subject to flooding.⁶⁴ The Fifth Circuit affirmed a lower-court ruling that there were no grounds for relief, although there were damages to landowners, because the government exercised a decision-making process regarding zoning not subject to relief.⁶⁵

2. A U.S. Federal Court determined that, although it was a tragic situation, students at Marjory Stoneman Douglas exposed to death and other tragic consequences, could not proceed as plaintiffs against the government (for its failure to act in the way plaintiffs desired, that involved an “assumption often made” about the public “right to receive protection”, which did not create a basis for jurisdiction or relief).⁶⁶

III. THE NEED FOR JUDICIAL, LEGISLATIVE, AND EXECUTIVE RECOGNITION OF CREATIVE AND INTERRELATED CLIMATE CHANGE REMEDIES

Damages due to climate changes, such as visible and continued flooding caused by rising tides, as noted at the outset of this article, may now be more “concrete”. But there are many claims pending involving judicial determinations yet to be made, as to the nature of the harm and the relief that can be provided.

The question of obligations to current and future generations to stop climate change damages was litigated in the *Juliana* case arising in a Federal District Court in Washington State; dismissed by the Ninth Circuit and now pending rehearing.⁶⁷ The United States Supreme Court, initially, did not grant a motion to stay the case before the Federal District Court based on theories that such relief cannot be granted.⁶⁸ The Federal District Court thereafter ruled for plaintiffs, but the Ninth Circuit reversed.⁶⁹ The case involved claims based upon statutory requirements, trust, and nuisance concepts.

64. *Residents Against Flooding v. Reinvestment Zone Number Seventeen*, Case No. 17-20373 (S.D. Tex. 2018), *cert. denied*.

65. *Id.*

66. *J. S. v. Scot Peterson*, Case No. 18-Cr-61577 (S.D. Fla. Dec. 12, 2018). *See also*, Adeel Hasan, *Officers Don't Have Duty to Help*, *U.S. Judge Rules* N.Y. TIMES, Dec. 19, 2018, at 19A, “[t]he school district and sheriff’s office in the Florida county that is home to Majorj Stoneman Douglas High School had no constitutional duty to protect the students there during the deadly February massacre, a federal judge has said in a ruling . . . Judge Beth Bloom, came on the same day that a county judge, Patti Englander Herming, came to the opposite conclusion . . . [t]he two decisions in a rapid succession highlighted an assumption often made: The belief that the public has a right to receive protection from police officers.”

67. *Juliana v. United States*, 947 F.3d 1159 (9th Cir. 2020).

68. *Id.*

69. *Juliana*, 947 F.3d, at 1175.

The Ninth Circuit reversed and held that the plaintiffs lacked standing.⁷⁰ So far, standing and relief have been reversed. Similar cases have been filed and are being litigated and appealed and some have been lost.⁷¹ Although, evidence may exist that there are climate change causes, determinations as to whether judicial jurisdiction and relief sought will be granted remain to be determined.

The realities are that existing evidence increasingly may show cause-effect connections between the climate change and “concrete” damages. However, acceptance of the linkage, necessary to create solutions and relief sought, remains to be determined by the courts of law, the courts of public opinion, and the legislative and executive branches. As noted, so far state courts have been more open to accepting and ruling on such matters.⁷²

But, even if state and then, gradually and eventually, some day federal courts were to become more “open” to climate change cases, planning and zoning codes, along with technological and architectural changes, may also evolve and, in certain situations, solve some problems.⁷³ The market and economy may also solve others. Some may argue, it is too late, and some communities are not sustainable, viable, or maintainable. Some people may move away; there are many reasons for moving, including economic influences and technology in addition to climate change.⁷⁴ Those remaining may suffer increased taxes, insurance costs and conflicts. We also know that governments, due to various changes, are not

70. *Id.*

71. *Id.*

72. But being “more” open does not always mean that state courts will be available. State courts do not always grant standing for various reasons, including deference to legislative processes, or agency discretion. For deference to agency “discretion” in rule making based on statutory delegation, see *Martinez v. Colorado Oil and Gas Conservation Comm’n.*, No. 17 SC 297, 433 P.3d 22 (Colo. 2019), slip op. at 14, “[a]n agency has broad discretion to decide whether to engage in rulemaking, and, thus, our review of its decision as to whether to do so is ‘extremely limited’ and ‘highly differential.’ *Massachusetts v. EPA*, 549 U.S. 497, 527–28 (2007) . . . (“an agency’s refusal to institute rulemaking proceedings is at the high end of the range’ of levels of deference we give to agency act on under our ‘arbitrary and capricious’ review.”)

73. *Id.*

74. Some are considering moving now due to desires to work at home because of COVID, or other reasons. Tray S. Smith, *Seeking New Businesses and Better Lives: A waive of venture capitalists are leaving the coasts for quiet or, less expensive locales*, N.Y. TIMES, June 14, 2020, at 6. Quoting one of several relocated venture capitalists “leaving the coasts” the article notes: “[n]ow, as people grow accustomed to working from home, it is no longer necessary to be on the coasts, he said ‘Covid-19 levels the geographic playing field,’ Mr. Jacobs [managing partner and co-founder of Radical Ventures] said. ‘Whether your office is in Menlo Park or Toronto, everyone is working via video conference, so every V.C. [venture capitalist] is around the virtual corner.’” Another “V.C.” Mark Kamme, co-founder of Drive Capital in Columbus, Ohio, has \$1.2 billion under management” and opined: “I think the best market for venture capital happens to be in Middle America”, he said adding that if the region were a country, the Midwest would be fourth largest by gross product and include nearly half the U.S. population.”

always able to fund infrastructure needs.⁷⁵ However, just as courts adopt to changing, circumstances, others can do so. Evolution not only involves natural changes. Humans may have caused all, or part of, climate changes. But, humans may also continue to fashion tools to adapt. If owners were to abandon large coastal areas, or other properties subject to risks due to flooding or other climate change causes, speculative purchasers may buy, or otherwise obtain, their property—even if converted by flooding into wetlands—at “rock bottom” costs with a plan to demolish, to raise the property, and to redevelop such property for reuse. We have examples of property described in the past and “derisively called a swamp”, such as Disney World.⁷⁶ Certain low areas adjacent

75. A current debate involves those who may want to relocate or retreat, due to climate change and those advising to remain and prepare collectively to ensure costs of communities can be funded due to benefits available in more populated areas. See also Alyson Krueger, *Real Estate Climate Change Escape Plans*, N.Y. TIMES, Dec. 2, 2018, at 10B. Discussing an individual who “knows a lot about climate change. That is why he is working on his escape.” He can “envision a time when his home” in Greenwich, Conn. “might be besieged by extreme weather and rising seas. So he bought four acres of land in the Catskill Mountains ... where he is building a home that is sustainable and self-sufficient as possible” He “drilled a well, set up poles for power line and designed a septic system that has been approved by the New York City Department of Environmental Protection. (The property is in the city’s watershed).” Continuing, the article notes “but hedging against climate change with an isolated home on piece of land isn’t a failsafe strategy. Bruce Riordan, program director for the Climate Readiness Institute at the University of California, Berkeley, cautioned that it wasn’t realistic to expect to live in a bubble. ‘Sure you can grow your own vegetables, but what about wheat and grain?’ he said. ‘And what happens when you need medical attention?’” The article continues, “[a] better strategy, Mr. Riordan suggested would be to find a community that is intelligently preparing for whatever climate change may bring. He equated the situation to what California had done about earthquakes: They can’t be avoided, but we can build safer buildings, get better at predicting them and establish systems to care for vulnerable populations when they occur.” The article states that Vivek Shandas, founder of the Sustaining Urban Places Research Lab, at Portland State University in Oregon noted: “But there will be destabilization, and it will all happen, in the foreseeable future.” However, Vivek Shandas still concluded: “[t]here is also the likelihood that no matter where you set up your Plan B home, it won’t be immune to climate change.” In Montana, “with its ample land, cooler climate and natural bodies of water considered to be an “appealing place to move to in the future” a real estate agency’s former owner stated his state “was under siege as well.” He stated of Montana: “[o]ur glaciers are melting, our summers are hotter and longer, winters less severe, forest fires have become annual, events he said, ‘climate change lives here, too.’”

76. Walt Disney World “exploded” in an area previously called a “swamp.” Disney World is an area that is now shrinking but “in the middle of one of the remaining so-called green corridors used by wildlife migrating between the Everglades and the Kissimmee River just to the south, as well as to the largely preserved Green Swamp to the northwest.” Steve Newborn, *People pour into Florida’s Four Corners, CAN WILDLIFE AND THE EVERGLADES SURVIVE?: Overdevelopment threatens to choke’ off a critical wildlife coordination in Central Florida connecting the Everglades to the rest of the state*, MIAMI HERALD, Dec. 16, 2018, at 1C. Disney World developed in an area previously “derisively called a ‘swamp’ just ready for the backhoe and the drainage ditch.” The cited article states that: “[b]y 2060, another 15 million people, nearly the population of the state today, are expected to move to the Sunshine State. Central Florida alone stands to more than double in population, from about 7 million in 2010 to an estimated 16 million people in 2020.” Cf., Wood, O’Mare, and Hall, *supra* note 56, regarding potential inundation of such areas due to climate changes and rising waters. See also Michael Grunwald, *supra* note 2 at 151–175. As one inspector of land he purchased in a lottery “uttered” in his “memorable” line: ‘I have bought land by the acre, and I have bought land by the foot; but, by God, I have never before bought land by the gallon.’ The book notes

to coastal waters, flooding, and other risk properties may also remain valuable. If property abandonment were widespread, it may cause, and facilitate, later redevelopment. Ironically, it may be easier to plan and demolish in an abandoned area than in a densely populated neighborhood—with varied and different owners and interests.

*A. The Need for New Tools and Remedies Such as
New “Submerged Rights,”
Elevated High Rail Communities and
“Reverse Permitting” to Cope with
“Waters of the State” Rising Above Our
“Traditional Uplands”*

It would be preferable to anticipate, plan and solve such problems by instituting processes to assist all concerned. Yet, there are human problems. Some situations for consideration are instructive:

1. There are situations where communities determined that they would try to raise levels of roads (when asked by citizen associations) only to find individual property owners in the associations do not agree that the associations can speak for individual property owners. In certain cases, city governments may seek to move the proposed work to other locations, where owners may be more inclined to desire relief. However, there may not now be a desire for such work involving raising of roads. There are not only potential flooding issues, but construction issues. Even though the citizens living in an area may benefit from flood protection, they may not want to pay “the costs.” The costs may not only be economic even if arguably funded by government in the case of raising road elevations. They may also involve costs to owners and residents in terms of their economic pay out for raising residents’ taxes and land and the quality and style of living (due to construction inconveniences and issues).

2. Recently a property owner’s association in Miami Beach requested assistance and raising of infrastructure to protect their property from regular flooding tides on the full

that explosive growth started after not only extensive infrastructure for governmental drainage, but air conditioning, DDT, air, and interstate travel as well as other factors. *Id.*, at 229. For those reasons, and others, Disney in 1965 “announced even more explosive plans to convert 27,000 acres of marshes around the head waters of the Everglades into a theme park”. *Id.*, at 230.

moon, but some owners also requested that relief be delayed a few years. They did not want the disturbance in their neighborhood.⁷⁷

Such problems and economic issues are similar to those raised in France with some “yellow vests” as noted.⁷⁸ These are our, human, issues. Due to such human and other varying problems, solutions remain to be determined.

There may need to be arrangements to prohibit development in wetlands and flooded areas caused by climate change. This may trigger needs for creative executive and legislative adjustments. Adjustments may take the form of planning and zoning and transfer of property rights and interests by reservation of the “bundle of sticks”, which the law recognizes in property ownership.⁷⁹ There may be creative solutions proposed—such as recognition of ownership and a transfer of the future building rights involved at, adjacent or related to, the same or another location. There might be creative, anticipatory arrangements for transfer of development rights (in certain situations where current uplands were to be flooded but dredging and filling were possible) to facilitate other compensation or trade-offs. If such a situation occurred, the transferring of possible later use of such “reserved land rights” in land and a fee of an existing owner may enable possible later compensation (for the value of the property before development and later increased value). Recognizing even such factors as the property being in a future flood-prone area, or potential wetland, that may be restored and become more valuable due to restored

77. See Alex Harris, *Climate change project divides neighborhood – Miami Beach’s plan to make the City ready for sea level use by raising roads has inflamed Lakeview, a tiny tony neighborhood where residents formed a non-profit specifically to fight the upcoming project*, MIAMI HERALD, Dec. 14, 2018, at 1A, stating “Miami Beach’s answer to sea levels pushed higher and higher by climate change—raised roads—has been endorsed by international experts and scientists as the future of infrastructure in a warming world. But at home, the idea has split a tiny tony neighborhood in two.” Although maps show “miles of road with less than two feet of elevation above sea level, particularly on the bay, and the city’s plan includes raising all public road to 3–7 feet “there is opposition, and “residents insist Lakeview has no flooding problems and worry that the project will ruin the peaceful neighborhood they call their ‘Garden of Eden.’” The name does not, ironically, auger well but the neighbors involved have concerns that raising roads will cause flooding and not be effective and reduce property values. They want “to demand the City stop work on the project for six years.” They want the project “halted” or “the group is prepared to consider litigation.” See also, Alex Harris, *Miami Beach residents revolt against raising roads to fight sea rise*, MIAMI HERALD, Jan. 27, 2020, at 1A, “[e]xperts are once again telling Miami Beach to raise its roads against the threat of rising seas, and once again, residents are pushing back hard.”

78. See Gross, *supra* note 8.

79. *United States v. Craft*, 535 U.S. 274 at 27, 28 (2002); “A common idiom describes property as a ‘bundle of sticks’—a collection of individual rights which, in certain combinations, constitute property. See BENJAMIN N. CARDOZO, *THE PARADOXES OF LEGAL SCIENCE* 129 (The Lawbook Exchange, Ltd. 2000) (1928); see also *Dickman v. Commissioner*, 465 U.S. 330, 336 (1984), “State law determines only which sticks are in a person’s bundle.”

raised property, raises issues. These issues relate to anticipated, expectation, phoenix-like, “springing” interest reservations.

In addition, there might be a different compensation concept for the loss of uplands and the development rights but also for reservations that include open waters, or open spaces. The development rights may be based upon varying expectations, or other compensation factors. In an area that were to be, or would be, flooded (if the owners were moving out and/or selling at low prices), there may be recognition of the fee, the ‘ownership’, and a development transfer, as noted. So, if the land later were to be developed by a “vulture” fund, or a combination of government and private developers, or any other number of combinations that could be beneficial, there might be some later compensation provided to the original fee owner for a “reserved and preserved right.”

There could be some later compensation for such ownership right as in the case of some transfer of ownership. In the event of a later high-rise building on the site, a unit, or designated refund from sale of a unit, could provide some return to, and a different agreed arrangement for, the owner of the transferred and reserved property right. In another situation, where government, or private enterprise creates high elevated rail services to enable movement of traffic, which would, or could, be cheaper than raising the roads and then raising the surrounding ground, the result might be the consequence of future flooding of the ground, leaving the owners with flooded land. Ironically, some of these owners may have been individuals who objected to raising the roads. They may be individuals who were self-destructive (who could have afforded to raise their land but, instead, stopped the raising of roads and then found out it was too late to stop the flooding of their lands in any event). As a result, there might be elevated roads, which could be developed at certain locations by high-rise buildings adjoining to, and connected to, by raised rails.

Nevertheless, even owners, who were self-destructive, might (if they could and did reserve such future rights) obtain another chance to salvage their properties value, although underwater. Some relief may be enabled, by being able to transfer some property rights, and give up their low level, subject to flooding land, or wetland, underwater property, in return for some potential to dwell in the high-rise structures, or receive later payments that their transfers enabled.

There might be owners who just abandon areas without governmental entities that could lift roads, or an elevated transportation system to solve problems. The lands left wet, or underwater, might be similar to the lands involved with

Miami Beach and Miami, before the dredge and filling occurred. However, the flooded areas and wetlands of the future due to climate change (that may now be uplands), or the uplands that are now high and elevated and in less fortunate communities, might now, or increasingly, have a value for investors, developers, or governments.⁸⁰ It might be that a recognition of a fee interest could enable a system of compensation, once the land were raised, developed and the value obtained. It might be small, but it could still be a significant amount for an individual who otherwise was an owner of a prior fee that was flooded or otherwise lost. Alternatives might be worth exploring.

It may also turn out that in the areas that were flooded and lost, or in other locations vulnerable for other reasons, there might be situations where later development could be worthwhile, because of the value of land development and rebuilding, and new communities. If the value of the properties of those who left increased later due to use of what they reserved, there might be a return compensation for those relocated in other places who did not want to return, so that they would not be fully deprived of income and might be relocated.

Alternatively, there may be speculation in other areas, such as higher lands with other resources such as fresh water aquifers and natural resources, that will increase in value with climate change.⁸¹ Governments cannot be counted on to be solvent, or even if solvent, able to fund all human needs, and just as some may want and welcome governmental regulation, some may not.⁸² But, if

80. See Newborn, *supra* note 76, describing Disney World's creation in an area previously "derisively called a swamp."

81. See Krueger, *supra* note 29. See also, Jim Robbins *Canal's decay may leave mountains parched—a federal water project from the early 20th century needs a \$200 million overhaul*, N.Y. TIMES, June 16, 2020, at 12A. "A century ago, one of the first of the ambitious federal water projects that helped build the West was constructed to carry water from the mountains of Glacier National Park hundreds of miles east, irrigating an area twice the size of Maryland." Now a "crumbling concrete portion of the antiquated ditch system" cut off flow "in a portion of Canada and much of eastern Montana." State officials may be able to fund a new concrete ramp but not the entire canal at the end of its life. The federal government knows the irrigators cannot fund it and: "[n]ow the question is how to pay for its upkeep in a 'modern era when public resources, especially during the present economic downturn, are gravely challenged. 'The costs are certainly prohibitive for irrigators to pay' said Steve Davies, area manager for the Bureau of Reclamation in Billings, Montana. Without funding from Congress, which he said must deal with a long list of aging infrastructure projects across the country, 'it's a real dilemma.' If funding does not come through, Mr. Davies said, it could be catastrophic. Many here are warning that farmers in the region could suffer the same state as their homesteading predecessors."

82. See Elizabeth Williamson, *Surge in Arizona Follows 'Missed Opportunities*, N.Y. TIMES, July 4, 2020, at 1A, for "a philosophy of personal responsibility and individual choice," discussing the choices between calling off public events in "pandemic guidance" and halting events and requiring facemasks, or proceeding with planned public events. The article noted events proceeded "even as infections in the state spiral." The article stated: "[s]uch is the way of fiercely independent Arizona has handled the virus from the start." The Governor "has

values can be preserved through creative solutions, not only judicial but also executive and legislative, branches may solve problems. Instead of governments funding such climate change solutions and reclamation projects, they could be funded and benefit from enabling such reservations of property rights, that may ultimately enable and generate tax revenues. Governments might exchange, or offer, such rights where owners abandon property and disappear, but owners may still reserve and have some equity beyond and above their debts.

Architects, planning and zoning personnel, developers and real estate trusts, and property owners can also play a role. For instance, they can consider designing and building infrastructures and structures that incorporate climate changes. In different localities different design concepts and results will be appropriate. But, to return to one example, Miami Beach and Miami are part of an area running north to south. As a result, architects and planners, developers and local governments may use, and plan for more, elevated transportation (using, for example, the primarily north and south oriented mass elevated transit lines and elevated interstate highways in existence). These elevated corridors (and similar elevated transportation structures in the future) may be combined with elevated structures containing recreational, manufacturing, safety and refuge, office, retail, working spaces for music, art and entertainment and living spaces.⁸³ The structures can include

pressed a philosophy of personal responsibility and individual choice. That has largely left individuals in Arizona to decide for themselves whether to go to gyms, churches, rallies—or rodeos. See also, MICHAEL J. SANDEL, JUSTICE: WHAT'S THE RIGHT THING TO DO? 9, 268 (Farrar, Straus and Giroux 2010). Sandel notes at page 9 that “Aristotle teaches that justice means giving people what they deserve. And in order to determine who deserves what, we have to determine what virtues are worthy of honor and reward. Aristotle maintains that we can't figure out what a just constitution is without first reflecting on the most desirable way of life. For him, law can't be neutral on questions of the good life” . . . “[b]y contrast, modern political philosophers—from Immanuel Kant in the eighteenth century to John Rawls in the twentieth century—argue that the principles of justice that define our rights should not rest on any particular conception of virtue, or of the best way to live. Instead a just person's freedom to choose his or her own conception of the good life”. Notwithstanding the negative suggestion above regarding Aristotle's position that the law cannot be “neutral”, *Id.*, at 193, Aristotle in *The Politics*, Book III, Chapt. IX concluded law should not become “a mere covenant . . . ‘a grantor of men's rights against one another’—instead of being, as it should, a rule of life such as will make the members of a polis good and just.” *Id.*, at 9. Additionally, the article notes “we worry when judgments about virtue find their way into law.” However, Sandel also describes this question as follows: “[t]his dilemma points to one of the great questions of political philosophy: Does a just society seek to promote the virtue of its citizens? Or should law be neutral towards competing conceptions of virtue, so that citizens can be free to choose for themselves the best way to live?” *Id.*, at 269, concluding “[a] politics of moral engagement is not only a more inspiring ideal than a politics of avoidance. It is also a more promising basis for a just society.”

83. David W. Chen, *Is Hudson Too Big to Fail? How the project rebounds from the pandemic could be a bellwether for New York yards* N.Y. TIMES, June 21, 2020, at 10, describing the “Hudson Yards” footprint of 28 square acres, “half of which will be open space, is projected to accommodate 125,000 people who will live, work, study, shop and visit the area

low-cost and high-rise luxury living spaces. Adjacent lands (as a tradeoff, or use even valuable where flood prone, or flooded), might be used for outdoor recreational spaces and other functions. The values of prior owners, if reserved, may relate to, and benefit, all in such situations if there were best case scenarios. Best case scenarios may require more than economic considerations. Preserving values may not only require addressing structures, but the structure of our society. In Miami, lands used for mass transit, rails and interstates were in poor black communities. These lands were higher and, due to their increased higher values, are now the subject of “climate gentrification.” Such issues as climate gentrification will also create needs for creative low-cost housing.⁸⁴ Some residents of such high and now desirable properties—created by segregation and later redlining—were wiser and did anticipate the coming social issues.⁸⁵

As noted, the use of reservations enabled by the “bundle of sticks” and various property reservations in real property ownership may be used. The common law encouraged and enabled creative reservations that could be conveyed and protected in real estate transactions. Consider the ability of owners in areas that are subject to flooding or underwater due to climate change to reserve rights. If owners with “uplands” now transfer and reserve rights for later filling, development, or other uses, a reservation approach or concept (as suggested here) would be similar to mining reservations. These may literally and figuratively be called “submerged rights.” Potential restoration might create values in such submerged rights, which may increase. These values may be recognized in ways that benefit prior, and future owners, developers, governments and funding opportunities.⁸⁶ If governments cannot directly fund their needs and needs of their inhabitants, others—such as prior owners and developers—may fund governments in a new and creative manner. For example, an owner may reserve submerged rights so that if lands flooded were to be restored for future uses, a value may be created for the owner.

daily. There will be 18 million square feet of commercial and residential space, and 4,000 new apartments, more than 10 percent of which will be subsidized housing.” Stephen M. Ross, Chairman of the Related Companies (the owner and manager) said it “has inherent advantages because it was conceived as an integrated sustainable, state-of-the-art-live-work-play environment where people can get everything they want and need, right in their neighborhood.” In response to the question of whether in adapting to a post-COVID world the project could be a bellwether, Chairman Ross said: “The benefits of this kind of future forward thinking are more apparent and relevant than ever right now.” *Id.*

84. See Green, *supra* note 30.

85. *Id.*

86. See Krueger, *supra*, note 29, quoting Mr. Shandas, founder of the Sustaining Urban Plans Research Lab in Oregon: “The most resilient have been those communities of people working together to try to respond. Pulling away and isolating yourself is one of the most dangerous things you can do.”

Finally, our environmental and land use laws may be “fine-tuned.” Alternatively, a community that loses its property owners due to their retreats and defaults may inherit and own property. This property may be subject to the community reserving such submerged rights in the property, and existing environmental laws may be used to permit dredge and filling and development in the future, as “waters of the U.S.” wetlands, and periodically flooded areas, may rise above land that we now regard as uplands.⁸⁷ So, just as we currently permit developers projects impacting and in “waters of the US” to add fill to, and to raise our uplands, if, and as, our “uplands“ of today may be increasingly flooded, so, we can apply our permitting system in reverse.⁸⁸ We can permit projects in future “waters of the U.S.” wetlands, and periodically flooded lands, that may rise above our uplands of today.

87. The work to raise, or elevate, our existing “uplands”, so that they will not become “wetlands”, flooded by rising waters, is in its initial stages. It has commenced in some communities. See Harris, *supra* note 22, discussing plans by a tiny village of three man-made islands to use private industry and public infrastructure to raise land—to devise a “plan to keep its 9,100 residents dry until the end of the century.” This plan will require more. However, architectural history shows examples of working to design communities that assist and build for the benefit of all. The virtues that make urban areas and their communal values have long been recognized and portrayed in a manner that assists us. See VINCENT J. SCULLY, ARCHITECTURE, THE NATURAL AND THE MANMADE 196 (St. Martin’s Press 1991). Discussing communal values Professor Scully refers to the Allegory of Good Government, a fresco by Ambrogio Lorenzitti in Siena, Italy. Scully describes the Good Government personification as follows: “[g]ood Government is the majestic figure of the commune itself, to whose preeminence all the citizens of the town contribute. Indeed, they voluntarily grasp a golden cord that leads down from him and binds them all together. Again, communal values override these, very real as well, of individuals. In the center of the whole composition, not the largest figure, but the one so posed and brightly colored as to dominate the whole, is in fact the embodiment of peace, the greatest good the community can bring to mankind and upon which its own existence depends.” Scully states: “[s]een in its widest historical context, keeping in mind the pueblos of the Southwest, the cities of Mesopotamia, and the Greek polis, the Allegory of Good Government is the most complete pictorial representation we possess of the virtues that make the city, within itself and in relationship to the natural setting that supports it.” Pursuit of these virtues will also require taking into consideration different needs in different communities. In some locations, more low-cost housing may be the answer. See generally Chen, *supra* note 83 (relating to subsidized housing in the Hudson Yards project). In other locations, the effort and plan to assist all will require larger and more complex considerations and projects. This is because “low” cost is not, by definition, aspirational. See Green, *supra* note 30. Property ownership, not rental inclusion, may be achieved by subsidized low cost housing projects integrated into communities that have broader bases. Reserving literally and figuratively submerged rights may be one option. See *Id.*, Section B.

88. See Newborn, *supra* note 76, describing Disney World’s development. See also Joseph Z. Fleming, *Permitting Rising Seas in a World That is Flat: An Environmental Dilemma*, ENVIRONMENTAL LITIGATION, 20 AMERICAN BAR ASSOC., 1, discussing “fine tuning” of our permitting system, so that it can work in reverse. Now we protect waters and wetlands from development of uplands in such waters. But, as such waters rise above our uplands, we may need to permit filling of our uplands. Low cost housing does not have to create subsidized worker compounds or housing, it can also create ownership options.

*B. The Need for Recognizing Our Climate Change Problems
are Not Geologically New and Require Evolution of
Our Civilization to Rise Above Such Monumental Concerns*

As our needs for creative and new concepts develop into new designs and structures in the future, we have the capability and capacity to solve structural problems. Climate changes may come to be new challenges to surmount. As John McPhee so tellingly and eloquently stated when contemplating natural changes over time:

When the climbers in 1953 planted their flags on the highest mountain, they set them in snow over the skeletons of creatures that had lived in the warm clear ocean that India, moving north, blanked out. Possibly as much as 20,000 feet below the seafloor, the skeletal remains had formed into rock. This one fact is a treatise in itself on the movements of the surface of the earth. If by some feat I had to restrict all of this to one sentence, this is the one I would choose: the summit of Mt. Everest is marine limestone.”⁸⁹

It is a type of poetic justice that concrete may originate due to limestone⁹⁰ and the past may return us here to concepts of returning to creating the “concrete” necessary for judicial standing and access as well as the concrete that may, if our executive and legislative branches function too, be used in creative infrastructure and structures.⁹¹ This also returns us full circle to the past history of civilization and also to possible tools for fashioning new rules and reasons we will need to rise above, and solve, climate change issues.⁹² Let’s hope that the irony of this potential series of returns is not lost on, but rather, can benefit, all.

89. JOHN MCPHEE, *ANNALS OF THE FORMER WORLD* 124 (Farrar, Strauss and Girox) (1998).

90. See Grunwald, *supra* note 2, at 15, 17. The possibility that climate change may cause use of limestone, in the form of cement, to raise uplands flooded by rising seas is ironic and a reason for reflection. But we have to realize that we cannot reconcile or solve all problems. We cannot be resilient without further changes. We cannot maintain the *status quo* because it already includes rising waters in many locations. But we can learn to use the “golden cord”, to unite communities. See Scully, *supra* note 87.

91. As noted in note 86, we will need creative executive and legislative actions to enable new programs. The judiciary will determine their validity but cannot create such program.

92. CHARLES FRIED, *MODERN LIBERTY AND THE LIMITS OF GOVERNMENT* 73 (W.W. Norton Company) (2007). Fried champions open markets; allowing free trades on open markets, in an argument made famous by Adam Smith, increases efficiency and maximizes individual welfare by channeling resources to their highest and best use.” However, Fried also notes that the “community of Liberty” states it is a “failure of imagination and clear thinking” to treat human interactions separately in which trade and construction are “distinct from interactions involving art, love, and human caring.” He states: “(Look carefully at the activities above the word LIBERTAS, depicted in Lorenzest’s *The Effects of Good Government* reproduced on the jacket of this book.) In both love and trade, human beings use their liberty and elicit some corresponding use of their freedom from those with whom they interact.”