



CLIMATE LITIGATION

Adaptation: Who Pays for this Costly Response to Climate Change?

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Much of the recent climate change litigation involving municipalities and corporate entities has been focused on the recovery of past and future costs incurred from the process of adapting to the threat of climate change. This process is referred to as "adaptation". Although this type of cost recovery litigation is relatively new, (see *Delaware v. BP America Inc.*¹ and *County of Maui v. Sunoco LP*),² adaptation itself is a valuable tool in preparing for the impacts of climate change. To understand the intricacies of these cost recovery cases, one must first understand what adaptation is, and how it is used to address the growing threat of climate change related damages. Adaptation is a process that seeks to make adjustments to ecological, social, or economic systems in response to actual or expected climatic stimuli and their potential effects or impacts. This differs from the idea of climate "resilience," which is the ability to anticipate, prepare for, and respond to hazardous events, trends, or disturbances related to climate change. While adaptation refers to steps a community or company can take to minimize current and future damages (the process), resilience is the actual ability to withstand the current and future threats of climate change (the result).

An example of an ongoing, large scale adaptation project is taking place in Hoboken, New Jersey. The project is multifaceted and involves major overhauls of the city's infrastructure, zoning, and emergency management. The

¹ *Delaware v. BP America Inc.*, Case No. 1:20-cv-01429-LPS, (D. Delaware, Sept. 10, 2020)

² *County of Maui v. Sunoco LP*, Case No. 1:20-cv-00470-DKW-KJM, (D. Hawaii, Oct. 12, 2020)

project focuses on four pillars. The first pillar is to "Resist" the expected effects from climate change by installing a combination of hard infrastructure projects (including bulkheads, floodwalls and seawalls) and soft infrastructure initiatives (such as berms or levees) that could double as public parks. The second pillar is to "Delay" the effects of climate change by proposing policy recommendations and guidelines. The third pillar is to "Store", as in conserve, the existing water and electrical surpluses within the city's limits, and well as create new methods to capture clean water and renewable electricity from the environment. The fourth and final pillar, "Discharge," aims to create new ways in which Hoboken will be able to rid itself of excess stormwater through upgrades to existing systems, as well as the installation of emerging technologies. The Hoboken project is part of a federally funded competition called Rebuild by Design, administered by HUD and designed to promote innovation by developing regionally-scalable but locally-contextual solutions that increase resilience in the region.

The Hoboken project is similar to adaptation measures being taken in the Netherlands, perhaps the leading water-managing country in the world. Some of the adaptation measures there let flood waters in and are designed to have the population live with the water, rather than struggle to defeat it. Flooding waters are managed through the creation of lakes, garages, parks, and plazas that are a boon to daily life and double as enormous reservoirs for when the seas and rivers spill over (NY Times, June 15, 2017). These measures are in sharp contrast to the Maeslantkering or Maeslant barrier, a massive storm surge barrier on the Nieuwe Waterweg in South Holland, perhaps one of the largest moveable structures in the world.

So why have adaptation cost recovery lawsuits gained so much momentum? The answer lies in the details of what it takes to study, design, construct, operate, and maintain projects of this magnitude. As the Hoboken project demonstrates, adaptation projects are large scale and complex, involving state-of-the-art scientific, engineering, and architectural practices. The costs associated with even a modest adaptation project can be daunting, but the alternative may be catastrophic, with the most vulnerable communities facing imminent harm if nothing is done.

Given these complexities (especially the cost), state and local governments are seeking creative ways to pay for adaptation measures through grant programs such as Rebuild by Design, issuing climate bonds, generating additional tax revenues, tapping into potential insurance coverage, and pursuing cost-recovery litigation. All of these funding mechanisms have their issues, especially cost recovery litigation, which is largely based on the common law with no clear statutory theory of recovery. Plaintiffs contend that large corporate entities, such as oil companies, have been and currently are causing climate change. Legal theories ranging from nuisance to negligence to consumer fraud are being used as the grounds for these lawsuits. The plaintiffs are suing oil companies at a record pace in an attempt to get them to pay for the very costly and complex adaptation measures that will be implemented locally to establish a more climate resilient community.

Suing oil companies that are allegedly responsible for these damages is not without its problems. In fact, the current track record of these lawsuits is not good for the plaintiffs, with many of the suits being dismissed on constitutional

and procedural grounds before the courts ever get to deciding the merits of the case, as was the case recently with *City of New York v. Chevron Corp.*³ However, climate change plaintiffs are hopeful that the courts, especially State courts, will get past the procedural dismissals and start deciding these cases on their merits, which are largely based on complex scientific theories and engineering practices. Some of these theories require proving that a company failed to implement the proper engineering standard of care which resulted in climate change damages to a municipality, while others involve proving causation and whether adaptation and resilience measures are reasonable, necessary, and appropriate in the context of the climate change impacts being addressed.

These lawsuits will require engineers, city planners, climate scientists, and adaptation experts to help the plaintiffs and defendants explain the technical aspects of climate change and the engineering, social, and economic practices of adaptation to the courts. Plaintiffs will need to prove that the defendants caused (or at least accelerated) the rate of climate change, which will be difficult since oil companies did not actually burn the fossil fuels that they marketed, at least not to the extent consumers, utilities, transportation entities, and manufacturers did. The defendants will, of course, rebut the notion that they are liable for adaptation costs by casting doubt on the allegations of causation, nuisance, misrepresentation, and fraud. Should the courts decide that these cost recovery lawsuits are procedurally viable, the scientific and engineering proofs on both sides will make for complex litigation for years to come.

³ *City of New York v. Chevron Corp.*, Case No. 18-2188 (2d Cir. 2021)

About First Environment

First Environment is a full-service environmental consulting firm that provides climate change consulting and expert services to clients worldwide, including GHG reporting and verification/validation, mitigation and adaptation planning, risk management, resilience design and implementation, and global standards conformance development and auditing.

About the Contributor



Tom Vorhies, JD
Environmental Specialist

Mr. Vorhies provides litigation support on complex environmental and regulatory cases, including those involving investigation and cleanup liability at federal Superfund and state lead cleanup sites. He also supports project teams on litigations involving petroleum contamination sites internationally. Mr. Vorhies is also fluent in Spanish. He obtained his JD from Elisabeth Haub School of Law at Pace University and has a bachelor's in government and environmental studies from Dartmouth College.