

# Coastal Flood Resilience Project

## WHITE PAPER

### Comments on Proposed Regulations to Improve Corporate Disclosure of Coastal Flood Risk 5.24.2022

The [Coastal Flood Resilience Project](#) is a coalition of organizations working for stronger programs to prepare for coastal storm flooding and rising sea level in the United States. This *White Paper* provides comments on the Securities and Exchange Commission proposed regulations for corporate reporting of risks related to climate change with emphasis on risks to physical assets resulting from more severe storms and rising sea level.

#### **Introduction**

The [Coastal Flood Resilience Project](#) (CFRP) is a coalition of organizations working for stronger programs to prepare for coastal storm flooding and rising sea level in the United States. The CFRP provided [comments](#) to the Securities and Exchange Commission (SEC) in June 2021 urging the development of mandatory reporting of climate change risks and highlighting the critical importance of reporting the physical risks to facilities posed by more severe storm flooding and rising sea level.

The CFRP believe that disclosure of coastal flood risks will significantly improve decision-making with respect to the siting, protection, and relocation of physical structures at risk of storm flooding and permanent inundation by rising seas. CFRP supports improved disclosure of storm flooding and sea level rise risks to diverse coastal assets including homes, buildings, and infrastructure. The CFRP [Policy Agenda](#) calls for strengthening disclosure of these risks at time of home sale and adding storm surge and sea level rise risk to National flood Insurance Program maps.

In general, the CFRP offers two overarching recommendations to the SEC:

- The regulation as proposed makes reporting of storm flooding and sea level rise risks to corporate assets mandatory and the proposed regulation should be promptly promulgated without revisions to weaken these critical requirements; and

- The SEC should consider several clarifying and strengthening changes to the proposed regulations that will improve the quality and consistency of reporting related to storm and sea level rise risks to corporate physical assets that are described below.

## **Problem Statement**

A changing climate is driving more severe storms and rising sea levels that pose a risk of flooding and permanent inundation to the over [100 million Americans](#) living along the Atlantic, Pacific and Gulf of Mexico coasts. Storm flooding and rising seas also threaten infrastructure, ranging from transportation to defense assets, and to ecosystems including beaches and wetlands.

Corporate facilities, production plants, and related assets along the coast are also threatened by more severe storm surge flooding and rising seas. Flood damages to these facilities pose a financial risk to corporate owners and shareholders but also can harm local or regional economies due to lost wages and tax base and the environmental impacts of releases from flooded facilities.

**More Severe Coastal Storms:** Coastal storms are a major risk to life and property and major storms can deliver [storms surges of over fifteen feet](#). A warming climate is causing an [increase in the number of the strongest storms](#). These storms bring more extensive coastal flooding, higher storm surges, and increased rainfall. Research indicates that intense storms are [slowing down and thus](#) raining on a given place for longer, generating more flooding. Even as storms move more slowly, they [intensify more rapidly](#), making their landfall harder to predict and more likely to result in major damage and loss of life.

**Steadily Rising Sea Level:** The National Oceanic and Atmospheric Administration (NOAA) recently issued [new estimates](#) of future sea level rise concluding that the rate of sea level rise along the American coasts is accelerating and is likely to rise as much over the next 30 years as it has over the last 100 years. Under the “Intermediate” scenario, which is conservative given the current rate of emissions, seas are expected to rise about 1.3 feet by 2050. Sea level rise averaging as high as 1.7 feet around the coastline is possible over this period and could reach as high as 2.2 feet in some places (e.g., in the Western Gulf of Mexico).

By the year 2100, NOAA projects sea level rise along the American coasts to average about 4 feet (in the “Intermediate” scenario) while an average increase of over 7.2 feet is possible. Sea level rise in some regions could be higher. By 2150, NOAA forecasts average sea level rise of over 7 feet in the “Intermediate” scenario with the possibility of average increases as high as 12.8 feet with increases in the Western Gulf of Mexico of 14.7 feet.

NOAA explains in its new report that the rate of increase of sea level rise depends on increases in global air temperature driven by the release of greenhouse gases. Additionally, the rapid deterioration of ice sheets in Antarctica and Greenland could result in higher projected increases occurring sooner than previously expected. These changes in ice sheets are difficult to model but are thought to pose the greatest risk in the decades after 2050. Finally, sea level will continue to rise for centuries after 2150.

**Risk to Corporate Assets:** Many of the corporations reporting to the SEC own or manage physical assets that are located in areas at risk of damage or destruction due to storm surge flooding, [chronic inundation](#), and permanent inundation by rising seas.

Storm damage to physical corporate assets can result in repair and replacement costs as well as cause interruption of business processes. In some cases, flood damage to production facilities can cause release of pollutants to the environment and pose a risk to people, communities, and ecosystems (e.g., the release of 25,000 barrels of oil from the [Valero refinery in Louisiana](#) after Hurricane Katrina). Extended plant closures due to flooding can reduce business income and lost wages can result in negative impacts on local or regional economies. Corporate assets are also associated with [facilities storing toxic and other contaminants](#) that are at risk of inundation as a result of storm flooding and rising seas.

Commercial real estate is also at risk from more severe storms and rising seas. Douglas Poutasse, Executive Vice President at Bentall Kennedy (US) LP, a leading provider of real estate development and property management services in North America, [concluded](#) “We believe the risk [of sea level rise] is serious and has the potential to materially impact commercial property values in certain coastal areas within a foreseeable time frame.” Roger Grenier, PhD, Senior Vice President at AIR Worldwide Consulting & Client, [noted](#) that storm and sea level rise impacts “to the coastal real estate market, coastal businesses, and property tax bases will be geographically concentrated in the near term but will become more widespread over time.”

In addition, some very severe storms can represent a risk to multiple assets within a sector and damage to these assets can pose a threat to the larger American economy. For example, oil refineries along the Gulf of Mexico are at risk and shutdown or damage to these facilities can have wide economic repercussions. In 2017, Hurricane Harvey limited refinery operations and *The Wall Street Journal* [reported](#) “gasoline price surges to a two year high at the pump” that spread economic pain “throughout the nation.” In 2005, Hurricanes Katrina and Rita devastated the Gulf coast “[shutting down 24% of U.S. refining capacity](#), causing a significant drop in gasoline production and resulting in a 50% jump in the weekly average spot price of conventional gasoline production.”

Coastal storm flooding can cause major damages, but it is temporary and occurs only in areas hit by a storm. Rising sea level will make the acute risks of storm surge flooding more widespread over time. But rising sea level is also a chronic risk as it brings permanent inundation, occurs all along the coast, and is likely to continue for centuries. Corporate assets in

coastal areas, as well as roads, power supply, and other services that support these assets, are at risk of permanent inundation in the coming decades as sea level rises. Currently many coastal areas are already grappling with chronic inundation that can disrupt businesses intermittently. In addition, in places with pervious substrate such as Florida, rising tides can impact properties inland and seawater can contaminate freshwater and erode infrastructure.

A recent [report](#) on disclosure of climate change risks to physical corporate assets included an evaluation of the sensitivity of over twenty corporate sectors to a range of eight different climate hazards. Storm surges and sea level rise, along with inland flooding, were the only climate hazards judged to have a “high” impact on every one of the sectors evaluated.

In response to more severe storms and rising seas, corporations will increasingly need to invest in asset protection measures or relocate their coastal assets. These adaptation investments will be significant costs in some cases and are likely to multiply in the future. Because measures such as protection structures or elevation of assets offer only short-term solutions, corporations will need to relocate facilities and, in some cases, supporting supply chain related businesses and workforces. The eventual relocation of the facilities and supporting infrastructure can be a significant long-term cost to reporting entities. In addition, companies relocating to higher ground could impact local governments financial viability due to the loss of revenue from its tax base. These costs have significant implications for future profitability of corporations and have broader implications throughout society.

### **Recommendation: Promptly Promulgate Final Rule Without Weakening Changes**

The CFRP recommends that the SEC make prompt promulgation of the final rule a top priority and that the core elements of the proposed rule, especially those related to mandatory reporting of risk to physical assets, be retained and not weakened.

The CFRP believes that corporate reporting of climate change risks of all kinds is improving as a result of the Task Force on Climate Related Financial Disclosures (TCFD) and other efforts but that reporting is inconsistent among United States corporate sectors and individual corporations. It is critical that the SEC establish a single, comprehensive, non-debatable framework for mandatory reporting of climate change risks. Promulgation of a final rule that adopts the major elements of the proposed rule would address this critical need.

In addition, the CFRP recognizes that the proposed rule addresses the risks posed to diverse physical assets by more severe storms and rising seas and believes that future mandatory reporting under the framework described in the proposed rule would significantly increase information available to corporate decision-makers, shareholders, and the public. **Although improvements to the proposed rule should be considered, it is critically important that the SEC promptly promulgate a final rule that does not weaken the requirements of the proposal.**

Prompt action on a final rule is important for several reasons. Consideration of numerous comments on the proposed rule can often take longer than planned. Once a final rule is developed with SEC, the many reviews and clearances needed for promulgation and unexpected issues can further delay action. If final action were to be delayed until mid-2024, the final rule might be subject to the Congressional Review Act. In addition, initiating reporting under the final rule during the current administration would allow the SEC to manage a first reporting round, to help reporting entities resolve issues, and to address criticisms of the rule with prompt and constructive answers.

The disclosure framework outlined in the proposed rule requires registrants to make judgements about existing and future climate-related risks and opportunities. Registrants are more likely to accurately describe risks and effectively engage opportunities if they are able to draw on a narrative explanation of the rule language supported by examples and selected case studies. **As part of the final regulation development process, the SEC should develop a supporting guidance document.**

This type of supporting guidance was developed in the context of the TCFD process (i.e.; [Advancing TCFD Guidance on Physical Risks and Opportunities](#), 2018). This document is a model of how to provide useful, nonbinding background information and resources to assist registrants in developing complete and useful disclosures.

Finally, in conjunction with promulgation of the final regulation, **the SEC should adopt a policy that commits the Commission to developing a public report every two years on the required disclosures. The report ought to include a summary and evaluation of the disclosures required by the rule** and identify any opportunities to improve reporting through supplementary guidance or rule adjustments.

### **Recommendation: Adopt Strengthening Amendments to the Proposed Rule**

The proposed rule is sound and a final rule based on the proposal will dramatically improve corporate reporting of climate change related risks. There are, however, some areas of the rule relating to storm and sea level rise risks to physical assets that should be improved with clarifying and strengthening revisions.

- 1. Definition of Climate-Related Risk Too Vague:** The use of the term “reasonably” in the phrase “Describe any climate-related risks reasonably likely to have a material impact on the registrant...” (129.1502(a) creates immense potential for confusion and inconsistency in reporting and disclosure among registrants and should be deleted. The term “climate related risks” is well defined without adding this further qualification. The term “material” allows a registrant to avoid unproductive listing of negligible risks that might otherwise be required by the term “any”.

2. **Definition of Location Too Broad:** The definition of “location” (229.1500(k)) as an area of a zip code is far too general to disclose physical risk to assets from coastal storm flooding and sea level rise. The final rule should define “location” as a street address and include the elevation of the asset. The rule should also require that the percentage of assets at a facility that are at risk be disclosed (see SEC question 13).
3. **Definition of “Flood Hazard Area” Too Narrow:** In section 129.1522(a)(1)(i)(A) the term “flood hazard area” should be changed to “area at risk of flooding”. “Flood hazard area” is commonly understood to mean the Special Flood Hazard Area (SFHA) on the Flood Insurance Rate Map (FIRM) developed by the National Flood Insurance Program and many of these maps are out of date and hazardous flooding is common outside of the SFHA. One [study](#) found that 40.8 million people are exposed to the “1 in 100 year flooding” the area within the SFHA, compared to the FEMA maps that show approximately 13 million people at risk of that flooding. Retaining the term “flood hazard area” would therefore result in under-reporting of risks to assets and is not necessary to generate an accurate report.
4. **Sea Level Rise Clarification Needed:** A new paragraph (C) should be added to 129.1502(a)(1)(i) to address the risks of permanent inundation of an asset related to future sea level rise:

“(C) If a risk concerns the location of assets in areas subject to rising sea levels, disclose the expected future date of inundation (e.g., short/mid/long term) and the percentage of those assets (square meters or acres) that are located in the area expected to be inundated.”

This sea level specific requirement will help ensure that discussions of future sea level rise inundation risks to assets are meaningful and fairly disclosed.

5. **Clarify Time Horizon Periods:** Section 129.1502(a)(2) addresses how the registrant will describe risks over the short, medium, and long term but these time horizons are not defined (see also SEC question 8). Without approximate timeframes for short, medium, and long-term periods, the discussions of risk by registrants will vary widely and result in risk assessments that are impossible to compare or that apply to widely different timeframes. Registrants that opt for shorter periods will likely be disclosing fewer risks than those that opt for longer periods, especially in the case of risks like sea level rise that grow steadily worse over a long period of time. Inconsistent reporting of risks like sea level rise is a disservice to shareholders, investors, corporations, and the public.

To address this concern, the SEC should formally adopt time periods in years for the short, medium, and long term. For example, the [guidance](#) on physical risks and

opportunities developed in support of the TCFD associates years with the three periods (i.e., short: 3-5 years, medium 5-20 years, and long: 20+ years).

It is important, however, that the long-term period suggested in the TCFD guidance be clarified to include at least the period to the year 2100. This is the period commonly used for scientific projections of future sea level rise risks by expert organizations including the [National Oceanic and Atmospheric Administration \(NOAA\)](#) and the [Intergovernmental Panel on Climate Change \(IPCCC\)](#). Although some existing physical assets have a design life that will conclude prior to 2100, many of these assets will be rebuilt on existing sites and risk assessments should address risks at these sites rather than simply risks to structures over an arbitrary design life.

Finally, corporate managers and shareholders would also benefit from disclosure of the risks to physical assets and related infrastructure posed by sea level rise of specific increments (e.g., one half meter, one meter, two meters). This information complements assessments associated with time periods and provides a more balanced and complete picture of risks to assets.

**6. Require Coordination of Response Actions with State and Local Governments:** Section 129.1503(c )(1)(i) provides that transition plans are to describe:

“How the registrant plans to mitigate or adapt to any identified physical risks, including but not limited to those concerning energy, land, or water use and management;”.

The development of adaptation plans for physical risks will often involve actions that have an impact on surrounding areas. For example, construction of a berm around a plant can cause floodwaters to extend further into a community not protected by a berm and a decision to relocate a plant to higher, safer ground might displace plans to relocate a community or other infrastructure asset to the same site. It is in the interest of both a corporate owner of a facility and the surrounding community that plans for adapting to climate related risks, especially flood and sea level rise, be coordinated.

To provide for cooperation in adaptation planning between a facility and the surrounding area, SEC should add to the end of section 129.1503(c )(1)(i) the following:

“and how the registrant will coordinate such plans with comparable climate risk adaptation plans developed by state or local governments.”

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