

**Statement of Dr. Sean Becketti
Before the Senate Committee on the Budget**

March 1, 2023

“Rising Seas, Rising Costs: Climate Change and the Economic Risks to Coastal Communities”

Chairman Whitehouse, Ranking Member Grassley, and Members of the Committee: Thank you for inviting me to address the ways sea level rise and increasing flood risk affect housing.

My name is Sean Becketti. I trained as an economist and I have worked in academics, the Federal Reserve System, and—for almost the past 30-years—in financial services specializing in mortgage research and modeling. During those three decades, I led research and modeling teams at some of the largest mortgage originators and mortgage portfolio managers in the world.

In 2016, while I was the chief economist at Freddie Mac, I co-wrote an article about the potential impact of flood risk on housing with a special focus on sea level rise. The article was called “Life’s A Beach.” I believe that article is more relevant today than when it was published, and I would like to summarize the key points for you.

Sea level has risen measurably over more than a century. Between 1901 and 2018, the globally averaged sea level rose by between 6 and 10 inches. More precise satellite radar data for the period 1993 to 2017 indicates that the pace of sea level rise is accelerating. The rate of sea level rise varies considerably across regions. For instance, the sea level along the Eastern seaboard of the United States has been rising 3 to 4 times faster than the global average. And in the Miami area alone, daily high water levels have been rising almost an inch a year. Floods also have become more common, and some cities on the East coast have experienced a 10-fold increase in the frequency of flooding. In the years since the publication of “Life’s A Beach,” the National Oceanic and Atmospheric Administration recorded 12 floods that each caused more than a billion dollars in damage.

The primary source of flood insurance in the United States is the National Flood Insurance Program. By subsidizing the premiums on the insurance it offers, NFIP actually encourages development in the floodplain. Moreover, many of the NFIP flood maps are out of date. Independent research suggests that many areas tagged as outside the floodplain by NFIP face a significant risk of flood. Finally, NFIP is expensive. In 2017, Congress forgave \$16 billion in order to keep NFIP’s debt within its \$30.5 billion limit. Currently NFIP accrues over \$1 million dollars per day in interest charges on its approximately \$20 billion in debt.

The increases in sea level and flood risk pose challenges both for homeowners and for the housing system generally. Let me list just five of these challenges:

- Most mortgages in the United States are 30-year loans. In areas where sea level rise may make homes uninhabitable in 30 years or less, lenders may become reluctant to offer 30-year mortgages.
- Private insurance contracts are annual. As flood risk increases, insurance companies may choose between steadily rising premiums or simply failing to renew policies when these risks become near certainties.
- Taxpayers may balk at covering the escalating costs of the NFIP in light of the predictability of the losses. Taxpayers may feel that the affected homeowners ignored decades-long warnings of the risks they were bearing.
- A large share of homeowners’ wealth is locked up in the equity in their homes. If those homes become uninsurable and unmarketable, the values of the homes will plummet. Unlike the experience of 2007/08, these homeowners will have no expectation that the values of their homes will ever recover.

- Floods damage the infrastructure in a community. As a result, even homeowners on high ground who avoid direct damage may suffer losses as community services deteriorate and businesses are forced to relocate, taking employment opportunities with them.

These are just a few of the challenges posed by sea level rise and flood risk. There are no simple solutions. Nonetheless, the sooner the nation grapples with these challenges, the lower the cost and the lower the amount of human suffering. The sea level will continue to rise regardless of the course we choose.

Thank you for your time and attention.