

CLIMATE NEWS

From Sheldon Whitehouse, Barbara Boxer, and Jeff Merkley

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NYC's Sea-Level Plan: Will It Play in Miami?



Last week, Mayor Michael Bloomberg announced a comprehensive \$19.5 billion plan to gird New York City against the threat of sea level rise. The long-term plan includes a series of levees and storm barriers to protect against waters that are expected to rise anywhere between 20 inches and more than six feet in the next century. *National Geographic* looked at sea level rise mitigation around the world and highlighted vulnerable areas. Miami is featured because it tops the Organisation for Economic Co-operation and Development's ranking of global cities based on total value of economic assets exposed to coastal flooding. Miami rests on a foundation of highly porous limestone, so seawater would flow unimpeded beneath the types of defenses proposed for NYC. Seawater is already contaminating Florida's underground water supply, and it regularly erupts from Miami's sewers during particularly high tides. By the end of the century, large parts of Florida are expected to be underwater. Some say restoring the Everglades will help buffer some effects of sea level rise, but this is far from a cure-all. Broward County Mayor Kristin Jacobs, who is active in South Florida's sea level adaptation efforts, believes that while the state has a vested interest in solving this problem, municipalities will need to forge the path to developing solutions. (*WLRN/National Geographic*)

Climate Change Could Increase Flood Risk Areas by 45%

Rising seas, severe weather, and population growth are expected to increase the areas of the U.S. at risk of floods by up to 45 percent by 2100, according to a first-of-its-kind report released by the Federal Emergency Management Agency (FEMA). The report attributes 70 percent of the increased flood risk to climate change, and the remaining 30 percent to population growth. These changes could double the number of flood-prone properties covered by the National Flood Insurance Program (NFIP) and drastically increase the program's size and costs. The report warns that future payments from the program "may be larger than the NFIP's current funding and borrowing structure accommodates," which paints a grim picture for a program that is already debt-laden and is one of the government's largest fiscal liabilities. Climate change will likely also make flood insurance more expensive for individual policyholders, as FEMA's findings indicate that program's solvency would require the average price of policies to increase by as much as 70 percent to offset projected losses. (*Slate*)

377 Deaths, \$110B in Damage from 2012 Extreme Weather

According to NOAA's National Climatic Data Center (NCDC), in 2012 there were 11 weather and climate disaster events each with damages exceeding \$1 billion. With a total of more than \$110 billion in damage incurred throughout the year, 2012 was the second costliest year for extreme weather since 1980. The 2012 damages rank only behind 2005, which suffered \$160 billion in damage (in 2005 dollars) due to four land-falling hurricanes, including Katrina. The 2012 billion-dollar events included seven severe weather and tornado events, two tropical cyclones, and the yearlong drought and its associated wildfires. These 11 events resulted in 377 deaths and had devastating economic ramifications for the affected areas. With 11 events, 2012 also ranks second highest in total number of billion-dollar events behind 2011, which had 14 events. The two major drivers of the damage costs in 2012 were Hurricane Sandy at approximately \$65 billion and the yearlong drought at approximately \$30 billion. The drought affected more than half of the country and led to several devastating wildfires that burned over 9 million acres nationwide during 2012. (*NCDC*)

Coal-Burning Companies Top List of Largest Carbon Emitters

The Political Economy Research Institute (PERI) at the University of Massachusetts, Amherst has released a new list, based on 2011 data, of the top 100 United States emitters of carbon dioxide (CO₂) and other greenhouse gases. The top three polluters are each power-generating companies that burn coal, with combined 2011 emissions of over 375 million CO₂ equivalent metric tons. Together, those three companies accounted for roughly 5.6 percent of the more than 6.7 billion tons emitted in the United States in 2011. Coming in at a distant fourth is the federal government with 77 million tons, due in large part to federal ownership of power plants operated by the Tennessee Valley Authority. PERI's "Greenhouse 100 Polluters Index" reflects the fact that coal-burning power plants are the biggest single-point carbon emitters in the nation, although oil refiners—which emit carbon pollution when making gasoline and chemicals—and steelmakers—which require large amounts of energy to smelt iron ore—also have a notable presence on the list. (*Forbes/PERI*)

A handwritten signature in blue ink, appearing to read "Sheldon Whitehouse".