

# Viewing Ocean Rise from High and Dry and Over a Mile High

COASTAL RISK CONSULTING LED BY TWO ROARING FORK VALLEY RESIDENTS

ARTICLE NICOLETTE TOUSSAINT

When Hurricane Sandy hit in October, 2012, Robert Hubbell was directing worldwide marketing for the investment bank Cantor Fitzgerald and BGC Partners in New York City. "We had to vacate traders and work stations in one location on the aptly-named Water Street," he recalls. "It took almost five months to recover. I lived in New Jersey and saw first-hand all the damage done there and on nearby Staten Island."

When Hubbell retired to the Roaring Fork Valley in 2014 – high and dry at 6,181 feet above sea level – he wasn't thinking much about storm surge and ocean levels. That is until he met Albert Slap during a tennis match in Snowmass.

Slap, who lives part-time in Snowmass and part-time in Fort Lauderdale, happens to be one of the country's leading environmental attorneys. From 2004 to 2009, he was the director of the Nature Conservancy's Colorado River Program, and the award-winning attorney served as counsel in the first lawsuit to force a local government (Miami-Dade County) to prepare its infrastructure for climate change.

After playing doubles with friends, Slap and Hubbell discovered they both had attended the University of Pennsylvania. According to Slap, they "immediately bonded through our shared Sixties' Penn experiences and love of tennis." Slap eventually wound up asking Hubbell if he'd handle marketing for his startup called Coastal Risk Consulting, LLC.

The company's mission is to help billions of coastal residents, businesses and governments to get "climate-ready and storm safe." Using LIDAR remote sensing technology and mashing up cloud-based geo-spatial data and analytics, Coastal Risk Consulting (CRC) creates climate impact "flood vulnerability assessments." Those assessments predict what will happen to individual coastal properties as a result of high tides, storm surges, heavy rainfall and rising sea levels.

Hubbell, who is now CRC's vice president of marketing, observes that homeowners and prospective home-buyers in coastal areas typically don't know how much risk their properties face. More than 50 million pieces of U.S. coastal property now need flood risk analysis, and that number will grow.

The Union of Concerned Scientists reports that between 1957 and 2007, "the amount of rain or snow falling in the heaviest one percent of storms has risen nearly 20 percent on average in the United States," threatening areas previously thought safe from flooding. As a result, "agencies such as the National Oceanic and Atmospheric Administration, National Aeronautics and Space Administration, and the U.S. Geological Survey, among others, are working to gather information that can be used to redraw flood maps to help anticipate vulnerable areas."

For more than a decade, governments and large businesses have had easy access to those maps and to risk assessments that show what



more frequent and harsher storms will mean. But that information hasn't been easily accessible to individual homeowners. Slap, CEO of Coastal Risk Consulting, says he wants to "democratize" flood risk assessments.

CRC's Coastal Risk Rapid Assessment Report, an online, 30-year "vulnerability assessment" is available to anyone willing to pay a modest fee and enter a property address on the company's website at **CoastalRiskConsulting.com**. The resulting report incorporates "big data" from FEMA, the National Flood Insurance Program, the U.S. Army Corps of Engineers' Sea Level Rise Model, and tidal, ground water and land-subsidence records. CRC algorithms generate a flood-projection scorecard called First Score that breaks down the number of projected "nuisance flooding" days in five-year increments.

CRC has already provided risk reports to scores of coastal residential properties in Florida, Maryland, Delaware, Massachusetts, New Jersey, New York, Virginia, South Carolina, Texas and Washington. Its customers also include the City of Miami, two nuclear power stations, a military airfield, Atlantic Broadband, Duke Realty and the Boca Raton Executive Country Club.

Currently, CRC is attracting venture capital with the goal of automating a geo-spatial modeling process that uses cloud computing to provide flood risk assessments to anyone, anywhere.

Luckily for Slap and Hubbell, technology now makes it possible for them to sit high and dry in their Snowmass and Carbondale home offices while assessing coastline properties and serving clients worldwide.

Does that mean that they feel immune to climate change?

Not really. While demurring that he's "not a scientist," Hubbell says, "One of the things I have learned is the interconnectedness of climate, about El Niño and what happens here with the snow pack and summer water supplies, about rising sea levels and wilder hurricanes and storms around the world. Everything is ultimately connected."

Robert Hubbell (left) and Albert Slap (right)

