



# Cape Fear Firebird

*The Light of Save the Cape*

August 18, 2016

*How high's the water, mama?*

~ Johnny Cash, *Five Feet High and Rising*

## ***Deluge?***

A good friend has recently called our attention to data from the US Environmental Protection Agency showing that the frequency of coastal flooding events has increased recently. A stunning chart compares the number of flooding events per year for various coastal communities for the period 2010-2015 to various periods from 1950. For all of the 27 communities shown, the most recent period has a far higher incidence of flooding events per year than the previous periods. Here's the link:

<https://www.epa.gov/climate-indicators/climate-change-indicators-coastal-flooding>

Take a look. Click on Figure 2. You'll be stunned to see that Wilmington has a much higher rate of flooding events per year—almost 50—than any other US coastal community—higher than any on the east and west coasts—higher even than Key West. And Wilmington is 26 miles from the sea.

Our source wonders why. So do we. We started our query with Genesis 7, wherein “God looked upon the earth, and, behold, it was corrupt.” He then had a word with Noah, and you know what happened next. Could it be The Almighty's impatience with corruption in North Carolina?

Maybe. Or sea level rise could be the reason, but David Rouzer has told us not to worry about that, and besides all the coastal communities should be affected equally by that, and they aren't.

Our friend asks if the reason might be the deepening of the channel in the Cape Fear River over the years. Could that be admitting higher tides from the sea? Aha! We looked into that:

The Cape Fear River is naturally very shallow. The first explorers found the depth at the ocean bar to be about twelve feet. Upriver was much shallower in places, so the first communities were established below Town Creek, about halfway up the river to Wilmington.

A shallow river is a barrier for tides. That barrier has gradually been taken down by dredging. NOAA data show that after dredging to 26 feet a century ago, the tidal range at Wilmington was 2.6 feet. Subsequent dredging gradually increased the tidal range, so that with today's 42-foot deep channel, the tidal range upriver is 4.7 feet, only slightly less than ocean tides at the mouth of the river.

We see the effects all along the Cape Fear River, the Northeast Cape Fear River, and the many inlets. What were once fresh water marshes have been inundated by salt water, changing lush forests, home to many varieties of plant and animal life, some endangered, into dreary forests of skeletons.

And now the State wants to increase the depth to 47 feet. We'd better head for higher ground.

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