

Episode 3: Water Water Everywhere.

Heating a planet that is 70% water, like heating a pan of water, causes increased evaporation. Increased rainfall is inevitable. On a global scale a simple event like rain becomes an existential threat. Increased rain causes increased runoff and flooding which for the Hudson River, walled on both shores with industry, roads and rails, towns and cities, means more waste washed into its already burdened waters.(1) Inevitably, shoreline erosion will increase but inland flooding is also predicted to increase. Historically, inland flooding once had generally reliable annual patterns seldom delivering surprises but only requiring seasonal accommodation and defense against extremes like “once in a hundred years” flooding.

Nevertheless, “Across the United States, inland and riverine floods”...”are the most common type of natural disaster. They are also among the most dangerous to people and property.”(2) Upward trends in extreme rainfall and flooding events attributable to climate change are such that: “Our current climate no longer replicates many past patterns. Our future climate will only stray further from what we have come to expect and have developed our societies to withstand.”(2) The same authors demonstrate that while the Upper Midwest takes the lead in direness of increased inland flooding, the Northeast shares with it the largest increase in rainfall since 1958.

At the local level what might be the effects on the Hudson River from rising sea levels combined with increasing extreme rainfall events and potentially more inland flooding? Our observations of it by kayaking and canoeing in and about River Miles 130 to 135 show the history of the river is written on its banks. One thing notable is the numerous boardwalks, promenades, docks and structures once used that are now underwater wreckage. If the same fate is not to overtake the current human presence on the River’s banks, river-length erosion monitoring and systematic mitigation of erosion(3) may be the emerging needs to be actively addressed as inexorably Climate Change pushes into a fading normality.

Bibliography:

(1) “How is the Hudson Doing?” Department of Environmental Conservation, NYSDEC Website

(2) Fact Sheet Inland flooding; “Climate Change, Extreme Precipitation and Flooding”. July 2, 2019. Union of Concerned Scientists,

(3) “How to Control Stream Bank Erosion (12 methods)” Soil Management. Shared by Shewta R.. soilmanagementindia.com.

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