

Climate at a Glance: Floods

Bullet-Point Summary:

- There has been **no evidence of increasing flooding** frequency or severity as the climate modestly warms.
- The [U.N. Intergovernmental Panel on Climate Change \(IPCC\) admits](#) having “**low confidence**” in any climate change impact regarding the frequency or severity of floods.
- The [U.N. IPCC admits](#) having “low confidence” in even the “sign” of any changes—in other words, it is just as likely that climate change is making floods **less frequent and less severe**.
- Even if more flooding occurs in the future, any asserted increase in heavy precipitation would likely reduce drought frequency and severity. This is very important because drought is generally a greater climate concern than abundant precipitation.

Short Summary: Occasional heavy precipitation events and floods have always occurred and always will. The U.N. Intergovernmental Panel on Climate Change reports low confidence in any climate change impact on floods, and even acknowledges that climate change is as likely to have reduced flooding frequency and severity as it has been to make them more common. When alarmists point to a particular flooding event and claim climate change is to blame, the assertion defies objective data and even the U.N. IPCC. Also, as shown in the National Oceanic and Atmospheric Administration (NOAA) chart below, the documented decline in drought in recent decades would more than offset any asserted future harms of increased flooding, if they were to occur. Less frequent drought means more abundant crop production and more abundant water resources.

Figure 1: U.S. Wet-Dry Extremes

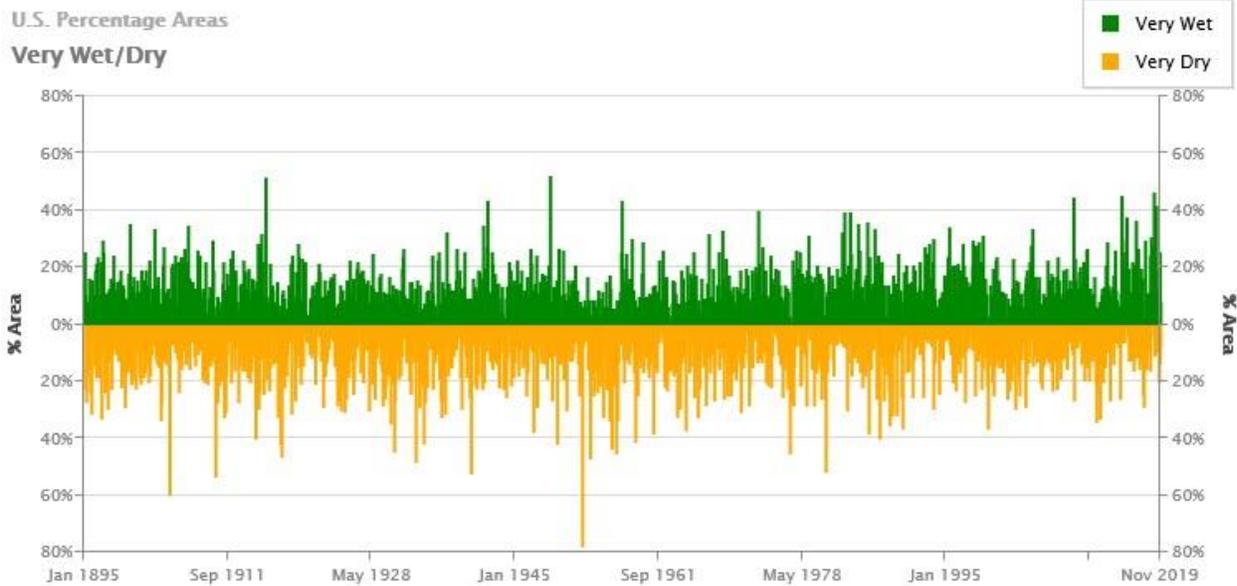


Figure 1: Percentage of United States experiencing “very wet” (in green) and “very dry” (in yellow) conditions. Source: National Oceanic and Atmospheric Administration, <https://www.ncdc.noaa.gov/temp-and-precip/uspa/wet-dry/0>.

In a study on the climate impact on flooding for the USA and Europe, published in [the Journal of Hydrology, Volume 552, September 2017, Pages 704-717](#), the study found:

'The number of significant trends was about the number expected due to chance alone.'

'Changes in the frequency of major floods are dominated by multidecadal variability.'

'The Intergovernmental Panel on Climate Change (IPCC) concluded (Hartmann et al., 2013) that globally there is no clear and widespread evidence of changes in flood magnitude or frequency in observed flood records.'

'The results of this study, for North America and Europe, provide a firmer foundation and support the conclusion of the IPCC that compelling evidence for increased flooding at a global scale is lacking.'

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