



Drinking Water Safety during Hurricane and Flooding Events



Why you should care: Rainstorms and flooding potentially flush anthropogenic (i.e., man-made) and natural pollutants into surface water. Source water used for drinking water supply could be negatively impacted.

What we did: During two flooding events caused by Hurricane Joaquin (2015) and Matthew (2016), water quality were closely monitored in the Waccamaw River, which was the water supply to many coastal cities in South Carolina. Samples were analyzed for treatability following the standard procedures.

Take Home Messages: An increase of potentially carcinogenic pollutants was observed for more than a month after both flooding events. Disinfection byproducts (e.g., chloroform) in chlorinated waters could exceed the EPA recommended levels after the standard treatment procedures.

What you can do: 1) Install water filters (e.g. activated carbon) to reduce pollutants in your tap water, 2) Stock bottles of drinking water during hurricane season, 3) Reduce chemicals use, which are eventually flushed into our rivers, and 4) Support environmental research against climate change.

BG&EQ Science Communication 2017 (1) - Details of the study can be found in: Ruecker et al. (In Press). Disinfection byproduct precursor dynamics and water treatability during an extreme flooding event in a coastal blackwater river in southeastern US. Chemosphere 2017 188: 90-98. Contact: Dr. Alex Chow – achow@clemson.edu; Web page: <u>http://people.Clemson.edu/~ACHOW/</u>