

North Carolina King Tides Project

A team of researchers from the UNC-Chapel Hill Institute of Marine Sciences ([UNC-IMS](#)) in Morehead City, NC have established the **North Carolina King Tides Project** (NCKT). This project is part of an [international initiative](#) to photo-document extreme high-tide events. The term “King Tide” refers to the [perigean spring](#) tide, when predictable, astronomical tides are at their highest. Coastal water levels across North Carolina are influenced not only by astronomical tides, but also by wind (direction, speed, & duration) and the Gulf Stream (position and flow rate). Thus, high water levels from today’s king tides help us to visualize future “normal” sea levels along the coast.



Photo Documentation

The NC King Tides Project was set up as an outreach activity to engage the public as citizen scientists with the photo-documentation of coastal water levels:

- Photos can serve as a powerful communication tool to facilitate a better understanding of coastal inundation issues.
- General public can submit photos of water levels using the [NOAA Water Level Reporter GeoForm](#).
- Water-level reports and photos are housed and supported by a NOAA database (available [here](#)). Real-time reports of water levels are shown on a [summary map](#) and contribute to NOAA’s [Inundation Dashboard](#).
- The NCKT Project has focused on and highlighted the high tide water level events, but also welcomes photo-documentation of low tide and normal water levels as well.

Water Level Monitoring

With funding from [NC Sea Grant](#) and [Carolina Integrated Sciences and Assessments](#), in fall 2017, the NCKT Project expanded to include a water-level monitoring component using gauging stations, with data contributed by trained citizen scientists in the 20 [CAMA counties](#):

- We are collaborating with members of the [North Carolina Association of Floodplain Managers](#) who are familiar with their region and will provide guidance on where records of water levels are most needed.
- UNC-IMS will provide the materials and training for this effort and participants will receive training and continued support as well. Citizen scientists can easily submit their measurements using the [Water Level Reporter GeoForm](#).
- We welcome participation from community groups, environmental associations, residential developments, HOAs, etc.

Please contact nckingtides@gmail.com with any questions.

Visit our website at: <http://NCKingtides.web.unc.edu/>