

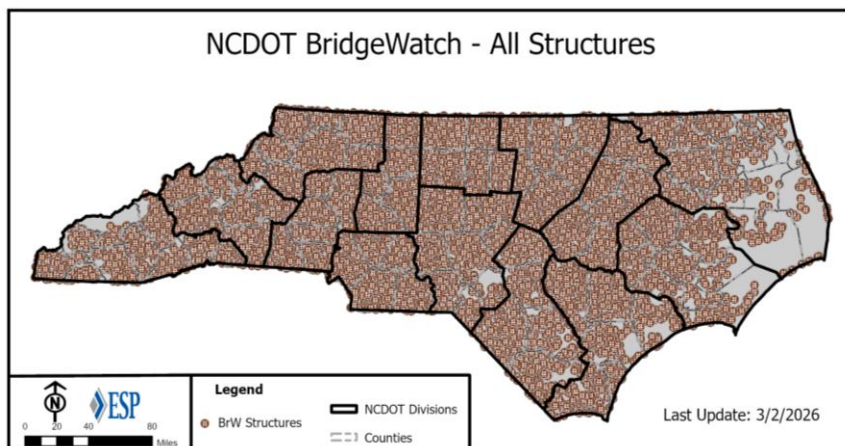


# BridgeWatch

Public Safety Through Real-time  
Structure Monitoring

BridgeWatch empowers bridge management to predict, identify, prepare for, and record potentially destructive environmental events by proactively monitoring, in real-time, bridge infrastructure.

**Program:** North Carolina Transportation professionals are charged with the formidable task of protecting, maintaining, and replacing over 16,000 structures (bridge, culverts, etc.) along over 80,000 miles of roadway statewide. To monitor flooding on NCDOT's maintained water crossings, NCDOT uses the BridgeWatch application. Developed and maintained by US Engineering Solutions, Bridgewatch is an online asset management service that enables DOT officials to monitor, in real-time, valuable transportation infrastructure which is potentially subject to hazardous conditions.



*BridgeWatch includes >16,000 structures including bridges, culverts, pipes, road sags, and more.*

**How It Works:** BridgeWatch collects and processes observed, real-time, and forecast data from meteorologic, hydrologic, and oceanographic sources, gauges, and other sensing devices. Data is compared against user generated bridge parameters, such as roadway overtopping and low chord heights of bridges. NCDOT officials and Emergency managers receive alerts via SMS text, email, and the application's dashboard when thresholds are crossed, and structures may be experiencing dangerous or critical conditions. After events, DOT officials review flood reports and refine bridge thresholds when necessary.

**Alerts and Response:** Officials are notified as sensors in the field detect water levels or high rainfall intensity levels that could indicate that the roadway is overtopped either at the bridge or bridge approaches based on elevation or design data. Forecast alert notifications are triggered if storm surge levels or forecasted rainfall conditions indicate the potential for flooding. This valuable information can be used for road closure, emergency response and post event inspection prioritization.

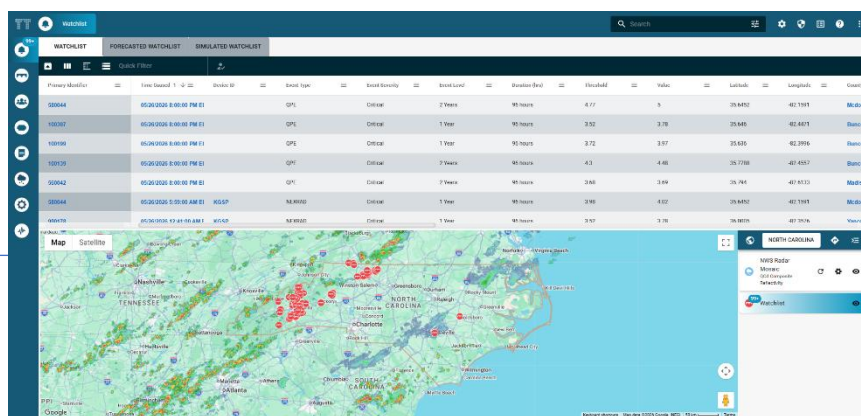
BridgeWatch can also be utilized as a hands-on training and scenario tool for emergency evacuation or security drills with event simulation capabilities.

**Find Out More:** For more information regarding BridgeWatch, visit US Engineering Solutions' website

<https://usengineeringsolutions.com/bridgewatch/>

For more information on how NCDOT is using BridgeWatch, please contact:

**NCDOT Service Account-BridgeWatch**  
[bridgewatchnotify@ncdot.gov](mailto:bridgewatchnotify@ncdot.gov)



*Alerted structures indicated by a red structure icon in BridgeWatch for gauge or rainfall alerts. Background shows current NEXRAD radar mosaic. The grid above the map displays information about the active alerts, this is called the 'watchlist'.*