

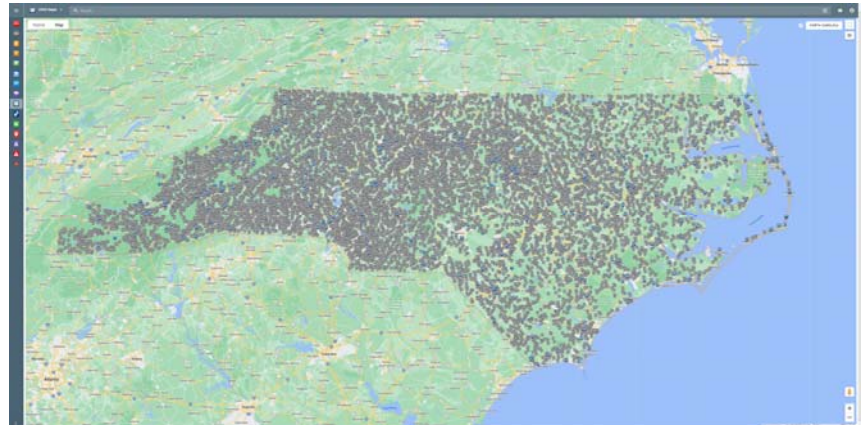
BridgeWatch

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 15,000 bridges along over 80,000 miles of roadway statewide. To help meet this challenge, The North Carolina Department of Transportation has implemented a 5-year program using the BridgeWatch application by US Engineering Solutions. BridgeWatch is an online asset management service that enables transportation professionals to proactively monitor, in real-time, valuable transportation infrastructure which is potentially subject to hazardous conditions.



Implementation of BridgeWatch includes +15,000 high-risk bridges.

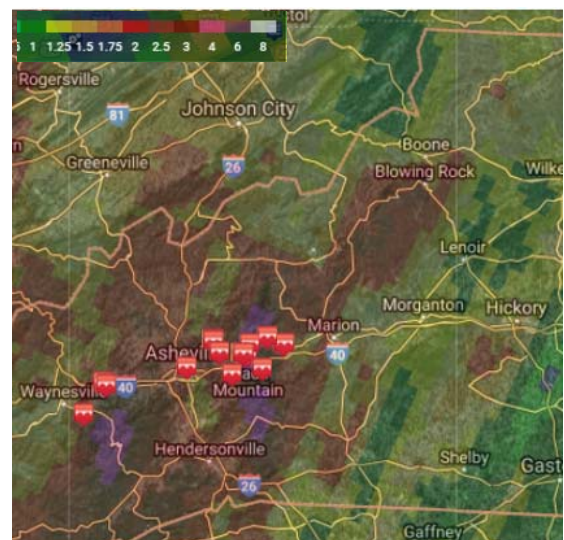
How It Works: BridgeWatch collects and processes real-time and forecast data from meteorologic, hydrologic, and oceanographic sources, gauges, and other sensing devices. Data is compared against user input bridge parameters, such as flood impact (floodwaters reaching structure levels) or roadway overtopping. NCDOT officials and Emergency managers receive alerts via SMS text, email, and application dashboard when bridges are experiencing a dangerous or critical condition.

- **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 (BridgeWatch)
<https://usengineeringsolutions.com/bridgewatch/>

For more information on how NCDOT is using BridgeWatch, please contact:
NCDOT Service Account-BridgeWatchnotify
bridgewatchnotify@ncdot.gov



Alerted structures indicated by a red structure icon in BridgeWatch for gauge or rainfall alerts. Background shows NEXRAD rainfall amounts. Alerts are focused in heaviest rainfall area.