



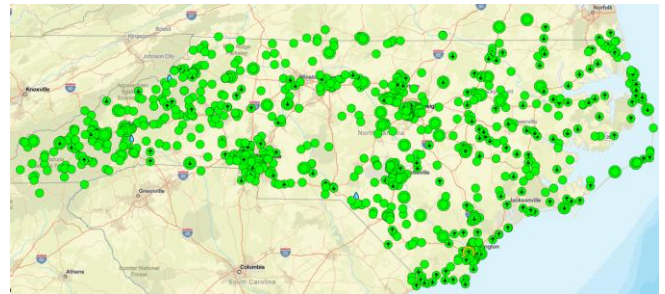
FIMAN

Flood Inundation Mapping and Alert Network

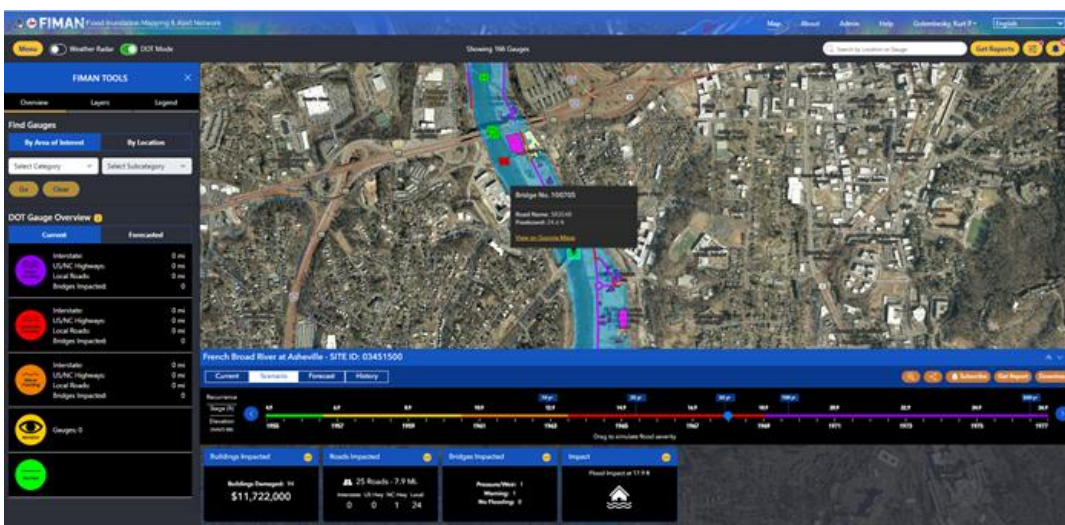
The North Carolina Flood Inundation Mapping and Alert Network (FIMAN) is a user-friendly, risk-based decision support application for floods that provides flood inundation maps, flooding impacts, and alert warnings based on rainfall and water level data.

Overview: Developed to support emergency management, public safety officials, and the public, FIMAN leverages data from hundreds of gauge locations across North Carolina to support continuous monitoring of hydrologic conditions. The application is designed to provide information on the flooding impacts of infrastructure and assist in decision making for flood preparedness and response.

How It Works: FIMAN utilizes a network of over 800 stream gages to provide data including stream stage trends with flood risk rating (Normal Stage to Major Flooding), inundation scenarios at various stream stages, and building risk data such as flood depths and estimated damage. The application also includes a "NCDOT mode" to highlight sites that have transportation layers to visualize potential flood impacts to road segments, bridges, and other North Carolina Department of Transportation (NCDOT) assets. These layers identify potentially impacted infrastructure and provide metrics on roadway inundation and bridge hydraulic performance. This data will enhance NCDOT's response during storm events by generating data and reports for use in disaster response and planning



FIMAN Gage Network



FIMAN Application showing DOT Mode

Reporting: In addition to the FIMAN application, there is also a Power BI dashboard dedicated to reporting impacts to roads. With different views for current and forecasted conditions, the dashboard includes summary tables of impacted gages, roads, evacuation routes, and can be filtered by division and level of impact.

For more information about FIMAN, please contact:

NCDOT Hydraulics Unit

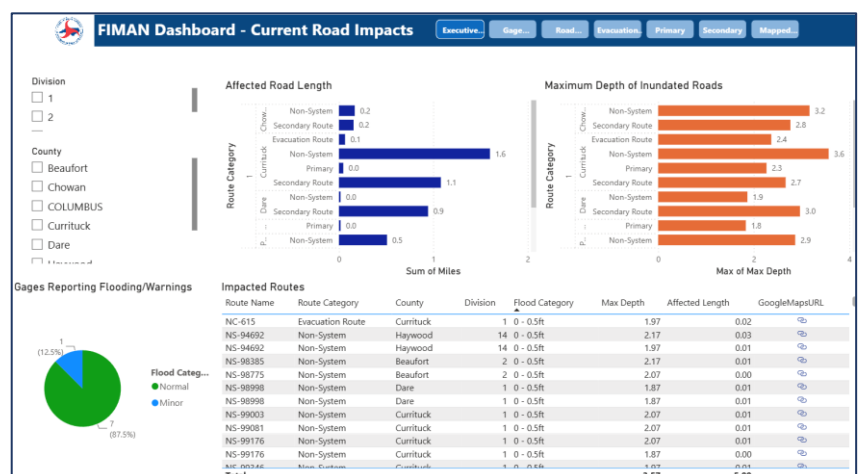
Kurt Golembesky, PE, CFM

Highway Floodplain Program – Engineer III
(919)707-6733, kpgolembesky@ncdot.gov

Matthew Lauffer, PE, CPM

State Hydraulics Engineer

(919) 707-6700, mslauffer@ncdot.gov



Power BI Dashboard