



Floodplain Mapping Program North Carolina

For the State of North Carolina, Office of State Budget, Planning, and Management ATCS is supporting a statewide elevation data and floodplain mapping program in accordance with the Federal Emergency Management Agency (FEMA) digital flood insurance rate maps (DFIRM) specifications. This multi-million dollar program was initiated when the State became a Cooperating Technical State (CTS) with FEMA. As a CTP, the State will be responsible for maintaining and updating the state's DFIRMs and both the State and FEMA have entered into a cost sharing agreement to support this undertaking. We have been working on data analysis, hydrographic surveys, water resources engineering, GIS and mapping, task cost estimate/cost control, extensive QA/QC and information technology services to the State for a five-year period. Delivery orders underway within the budgets and schedule and they include:

- Elevation Data Generation for the Lumber and Cape Fear Basins. Providing LIDAR data collection for more than 13,000 square miles of the Lumber and Cape Fear watersheds. The delivery order requires the use of GIS technology to perform LIDAR calibration ranges at five airports; LIDAR data collection during leaf-off conditions (three sensors are being utilized); break line generation using existing aerial imagery; and TIN generation.
- Water Resources Engineering and Mapping of Lumber Basin. Providing hydrologic and hydraulic modeling, field surveying, and GIS and mapping services for the Lumber Basin. This delivery order required the collection of more than 800 cross-sections and more than 150 miles of detailed stream analysis. HEC-RAS modeling software is to be utilized to delineate floodplains along the riverine environment and WAFIS and other coastal modeling software will be utilized for all coastal flood mapping. All data is output to ATC/INFO for DFIRM generation.