HOUSE BILL 1805*

Short Title:	Funds to Assess/Monitor NC Climate Change.	(Public)
Sponsors:	Representatives Harrison, Underhill, Wilkins (Primary Sponsors); K. Alexander, M. Alexander, Faison, Gill, Glazier, Hughes, Insko, Luebke, and McLawhorn.	
Referred to:	Environment and Natural Resources, if favorable, Appropriations.	

May 19, 2010

A BILL TO BE ENTITLED

AN ACT TO APPROPRIATE FUNDS (1) TO ESTABLISH THE COASTAL ADAPTATION RESOURCES MAPPING AND MONITORING PROGRAM AND (2) TO EXPAND THE NORTH CAROLINA ENVIRONMENT AND CLIMATE OBSERVING NETWORK; IN ORDER TO PROVIDE FOR MONITORING OF THE ENVIRONMENTAL IMPACTS OF GLOBAL CLIMATE CHANGE IN NORTH CAROLINA AND FOR IMPROVING WEATHER AND CLIMATE DATA COLLECTION IN NORTH CAROLINA, AS RECOMMENDED BY THE LEGISLATIVE COMMISSION ON GLOBAL CLIMATE CHANGE.

The General Assembly of North Carolina enacts:

SECTION 1.(a) The Coastal Adaptation Resources Mapping and Monitoring Program (CARMAP) is established within the Department of Environment and Natural Resources. This program shall be a cooperative program that utilizes the resources within the Department and the constituent universities within The University of North Carolina. This program shall provide the framework for mapping and inventorying the State's extensive coastal and riverine resources, to include the land areas within the coastal zone; the ocean and estuarine shore zones; and sub-aquatic bathymetry; sediments; and vegetation. This framework shall include at least all of the following:

(1) A field survey and inventory of the geologic and ecologic character of the entire shoreline system and maps that indicate the detailed distribution of shoreline types.

(2) A field survey, inventory, and maps that indicate distribution of the anthropogenic modifications of the entire shoreline system, such as any hardened shoreline structures, piers, marinas, or channels.

(3) For each five-year period, a periodic coastal land survey that incorporates high resolution, geo-referenced, infrared aerial photography, and LiDAR topography of the entire coastal zone in order to monitor absolute changes in shorelines, ecosystems, and land use.

(4) A bathymetric survey of the inland coastal waters that can be utilized for detailed modeling of estuarine storm surge, water quality, and sea-level rise, as well as supplying critical data for modeling shoreline erosion, distribution of submerged aquatic vegetation, and ecosystem migration.

(5) The framework for establishing various types of permanent monitoring stations within the State's coastal zone, which shall include at least all of the following monitoring stations:

a. A system of estuarine and riverine stations to measure absolute changes in sea-level rise, characterize the dynamics of storm surges and tides, and monitor water flow and quality through the coastal system.
b. A series of land-based sites in different ecosystems to monitor ecological change of habitats through time, including growth rates, structure and function, freshwater resources, saltwater intrusion, sedimentation and erosion rates, and any other changes.
c. Define the critical sediment sources and their depositional sinks within the State's riverine, estuarine, and barrier island systems.
d. Develop realistic sediment budgets and monitors for sediment transport directions and rates.

SECTION 1.(b) The Department of Environment and Natural Resources shall make the information collected under CARMAP, as established under this section, available to the general public on the Internet.

SECTION 1.(c) There is appropriated from the General Fund to the Department of Environment and Natural Resources the sum of five hundred thousand dollars ($500,000) for the 2010-2011 fiscal year to fund CARMAP, as established under this section.

SECTION 2.(a) There is appropriated from the General Fund to the State Climate Office the sum of five hundred thousand dollars ($500,000) for the 2010-2011 fiscal year to expand the North Carolina Environment and Climate Observing Network (ECONet), a program supported by the State Climate Office, the Department of Environment and Natural Resources, the Department of Crime Control and Public Safety, and North Carolina State University, in cooperation with federal agencies, for the purpose of providing a database that may be used to improve severe weather management, weather forecasts, energy planning, and natural resource management, as well as assisting agriculture, emergency response, natural resource management, tourism, economic development, education, and other applications that affect North Carolina's citizens.

SECTION 2.(b) The funds appropriated under this section shall be used to locate automated weather and environmental observing stations to counties that do not currently have such stations, thereby expanding ECONet and moving toward the ultimate goal of locating at least one weather and environmental observing station in each county in North Carolina. Data from these stations shall be provided to government agencies to improve severe weather management, weather forecasts, energy planning, and natural resource management and shall be made available to the general public on the Internet.

SECTION 3. This act becomes effective July 1, 2010.