SCHOOL RISK MANAGEMENT PLANNING
LEVERAGING DATA, TOOLS AND PARTNERSHIPS

December 4, 2013

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North Carolina Emergency Management
North Carolina Emergency Management - Mission

• Prepare for:  
Respond to:  
Recover from:

all hazards and/or threats whether natural, technological, or civil
SERT State Agencies

- **NCDPS (Lead Agency)** – NCEM, Corrections, SHP, NCNG, ALE
- **Administration** – Purchase & Contract, Facility Mgmt.
- **Insurance** – Fire Marshal’s Office, Building Inspections
- **Labor** – OSHA
- **Agriculture** – Food Safety, Animal Protection, Forestry, Crop Damage & Insurance
- **Transportation** – Debris Clearance, Road /Bridge Repair, Snow & Ice Removal, Hwy. Mgmt.
- **Public Instruction** – School Safety, School Buses
- **Commerce** – Economic Development, Retail Merchant’s Association
- **Health & Human Services** – Public Health, Office of Emergency Medical Services, Mental Health, Social Services (Shelters), Radiation Protection
- **Environment & Natural Resources** – Air and Water Quality, Public Water Supply, Dam Safety, Landslides
- **Cultural Resources** – Historic Sites, Museums
- **NCSU** – Coop. Extension – Agriculture Advice, Support to Disaster Impacted Communities
G.S. 166A-19.12 **Powers of the Division of Emergency Management.**

(14) Serving as the lead State agency for the coordination of information and resources for hazard risk management, which shall include the following responsibilities:

a) Coordinating with other State agencies and county governments in **conducting hazard risk analysis.**

b) **Establishing and maintaining a hazard risk management information system** and tools to display natural hazards and vulnerabilities and conducting risk assessment.

c) **Acquiring and leveraging all natural hazard data** generated or maintained by State agencies and county governments.

d) **Acquiring and leveraging all vulnerability data** generated or maintained by State agencies and county governments.

e) **Maintaining a clearinghouse** for methodologies and metrics for calculating and communicating hazard probability and loss estimation.
NCEM Progression To Integrated Risk Management

Framework
Data Acquisition

Hazard / Threat
Mapping

Digital Display
Environment

Exposure
Identification

Structural
Risk Management

Integrated Risk
Management

NCEM Progression To Integrated Risk Management
LiDAR-Derived Digital Elevation Model

HILLSHADED RELIEF OF NORTH CAROLINA
Statewide LiDAR Derived Elevation Acquisition Project
For Floodplain Mapping

The State of North Carolina, through the North Carolina Floodplain Mapping Program
commissioned the acquisition, processing, quality control of new elevation data and models.
The elevation data and model were acquired through a light-stake technology called
LiDAR (Light Detection and Ranging). This data was acquired in three phases from 2001 to 2006.
The Phase II LiDAR has undergone
Automatic Vegetation Removal (AVR) and noise filtering only, leaving some vegetation, noise, bridges, buildings,
and other man-made structures in the surface model. These artifacts are removed by manual editing
before delivery of the final bare-earth dataset.
It is the largest contiguous LiDAR acquisition in history as of January 23, 2007.

~ 6684'

~ Mean Sea Level
Aerial Base Mapping

Partners:
- NC 911 Commission
- NC Department of Transportation
Enterprise Risk DB

- Flood Risk Assessments
- Building Footprints
- All Hazards
- Critical Infrastructure
- Parcel Data
- Transportation
- Imagery
- Topography
- Schools
- Emergency Response
- Schools
Enterprise Risk DB
Emergency Response
Flood Risk Assessments
All Hazards Parcel Data
Imagery
Building Footprints
Critical Infrastructure
Transportation Topography
Schools
Mitigation Action Plan

Mitigation Action Plan
Macon, County, NC

http://irisk.nc.gov/irisk/
FRIS
iRisk
ReadyNC
FIMAN
SPARTA

https://www.ncsparta.net/

Damage Assessments Report

https://www.ncsparta.net/
County Hotspot Report

https://www.ncsparta.net/

NOAA Surge Prediction
Risk Management Plans – In the Works

- Flood Risk Management Plan (08/13)
- All-Hazards Mitigation Plan (09/13)
- License Care Facility Disaster Management Plan (01/2014)
- Mental Health Facility Disaster Management Plan (01/2014)
- Dam Inundation - Emergency Action Plan (11/13)
- Fuel Risk Management Plan (12/13)
- County Disaster Recovery Plan (01/14)
- School Safety Management Plan (Initiation)
- Child Care Facility Disaster Plan (Initiation)
School Risk Management Plan – Possible Data, Views, Plans

Safer School Risk Management Viewer

Risk Management Database

Safer School Risk Management Plan

Hazardous Materials
Evacuation Data
Emergency Equipment
Schools
Planimetrics
Emergency Equipment
Schools
Parcel Data
Safer School Risk
Management Viewer

Risk Management
Database

Evacuation Data
Hazardous Materials

Evacuation Data
School Risk Management Plan – Possible Data, Views, Plans
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Evacuation Plan

Utility Inventory

School Design Plans

Emergency Contacts

Oak Mountain High School Evacuation Plan

Oak Mountain High School Utility Inventory

Oak Mountain High School 2011 As-Built

Safer School Risk Management Plan

Risk Management Database

Safer School Risk Management Viewer
School Risk Management Plan – Possible Data, Views, Plans
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- Material Safety Data
- Emergency Inventory
- Evacuation Plan
- Utility Inventory
- School Design Plans
- Emergency Contacts

Oak Mountain High School
Chemical and Hazardous Materials Inventory

Emergency Equipment

Evacuation Plan

Utility Inventory

School Design Plans

Emergency Contacts

Risk Management Database

Virtual Alabama
School Risk Management Planning Initiative – Next Steps

- Establish Stakeholder Work Group
- Define Functional and Operational Requirements
- Establish Project with the Office of Information Technology
- Assess / Inventory Data Leveraging Opportunities
- Acquire Necessary Data / Information
- Construct School Risk Management Plan Template and Viewer
- Test / Receive Feedback from Stakeholders
- Conduct / Implement Pilots for Plan and Viewer
- Revise Plan and Viewer Based on Pilot and Reviews
- Progressively Implement
QUESTIONS?

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