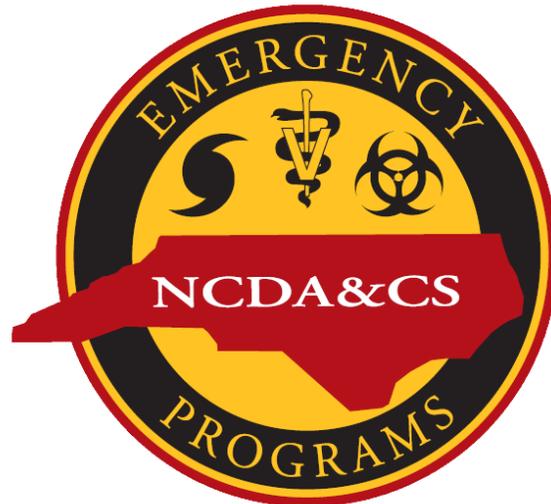


# **Emergency Programs Division Accomplishment Report 2011**



**NC Department of Agriculture & Consumer Services  
Steve Troxler, Commissioner**

*For the Emergency Programs Division, 2011 was a year of putting agricultural disaster response and recovery into practice with two significant events: 16 April Tornadoes and Hurricane Irene. The EP Division used preparedness skills and drew on experience from collaborative trainings, conferences and exercises to coordinate Emergency Support Function 11 partners during the storms. Following Irene, the Division began work on new initiatives to build capacity and capability for agriculture response which will continue into early 2012. Staff inspected animal contact exhibits at sanctioned agricultural fairs for compliance with Aedin's Law while also continuing their educational efforts with managers and exhibitors regarding non-contact animal exhibits. Staff participated in a number of teams and task forces working with federal, state, county, local and industry partners on a variety of one health veterinary and response and recovery issues. Training seminars and exercises, special projects, the development and use of new and refined technology, and the maintenance, repair and upgrade of equipment funded through several grants and cooperative agreements also set Emergency Programs on track for an equally successful and productive 2012.*

## 2011 HIGHLIGHTS

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- Hurricane Irene – Page 3
- Alabama Deployment – Page 3
- AHIMT/AERTs – Page 12
- The Firms Database – Page 14
- Change from Bing to Google Maps with Improved Routing – Page 15

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## INCIDENTS & EVENTS

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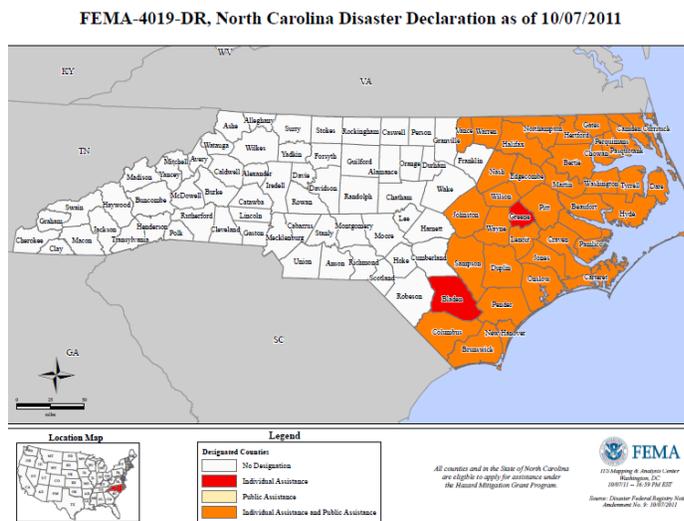
**1. Natural Disaster Preparedness:** Each year, EP prepares the North Carolina Department of Agriculture & Consumer Services for the hurricane season with several activities that improve our readiness. In 2011, these activities included: reviewing a Memorandum of Agreement with a national animal disaster non-governmental organization; organizing three regional Agricultural Disaster Information Exchange Workshops across the state; organizing the Agriculture Emergency Operations Center activation; participating in the Web Based Emergency Operations Center trainings; updating the State Emergency Operations Plan with agricultural information; updating the AgEOC operations manual; testing servNC and notifying the NC Veterinary Response Corps; participating in a statewide servNC exercise; conducting the Team Leader and NGO animal sheltering webinars; educating partners on preparedness activities (NCVRC newsletter, EP website, updates to divisions and partners); and more.

**2. Severe Weather Event - Agricultural Tornado Assistance Program:** On April 16, 2011, supercell thunderstorms spawned 28 damaging and lethal tornadoes that swept across many counties in central and eastern North Carolina. NCDA&CS' EP response began on Sunday, April 17, as a command structure was established to develop objectives and operationalize teams for response to agricultural and food facilities impacted by the storm. NCDA&CS established a telephone line to receive calls from farmers and related



businesses to report damage or receive information on assistance. Additionally, a website, [www.ncagr.gov/agtap](http://www.ncagr.gov/agtap), was developed to provide: information on resources that were available from federal and state government programs, links for farmers to exchange equipment/plants, a volunteer resource site for citizens and groups to volunteer to remove field debris, and to connect farm families to the latest information available on the storm damage. NCDA&CS Emergency Programs Division provided Wake County with one Companion Animal Mobile Equipment Trailer to assist individuals with pets evacuated from the storm's path in the North Raleigh area. Using maps and information developed by Emergency Programs Division ISS/GIS staff from the NCDA&CS Multi Hazard Food Firms database and storm impact data from the National Weather Service, the NCDA&CS Food & Drug and Meat and Poultry Inspection Divisions proactively began to prioritize and survey potentially damaged areas on Monday, April 18, 2011. A systematic review of the response efforts was conducted by NCDA&CS and an event after action report was developed and published on September 7, 2011 to assist with future response efforts to similar storm occurrences through the lessons learned.

**3. Tornado Response in Alabama:** In the aftermath of a series of deadly tornadoes that swept through Alabama on April 27, 2011, a six person NCDA&CS taskforce was deployed at the request of the Alabama Commissioner of Agriculture and under the provisions of a formal EMAC request. This team represented three divisions including Emergency Programs, Veterinary, and Plant Industry. In addition to human deaths and injuries, and major property damage, these storms caused widespread damage to grower houses and loss of critical infrastructure within the state's poultry industry. The taskforce's mission was to deliver equipment and technical support to the poultry industry. The team assisted Alabama and a team from Perdue Farms from North Carolina in depopulation and mortality management using AVMA approved technologies. During the mission, logistics support was provided by Emergency Programs staff in coordination with NC Emergency Management. The mission was also supported by USDA under the provisions of the Foam Grant. Emergency Programs conducted an after action discussion and summarized the lessons learned.



**4. Hurricane Irene:** Hurricane Irene made landfall on North Carolina's Outer Banks near Cape Lookout around 9 am EDT on August 27 as a Category 1 hurricane with winds of 85 mph. Prior to landfall, and in anticipation of evacuation in select counties, NCDA&CS' Emergency Programs Division opened the Agriculture Emergency Operations Center and formally established its incident command structure on August 25, 2011. EP summarized initial reports and provided information to NCDA&CS leaders through a formalized daily situation report. Due to the widespread

damages in eastern North Carolina associated with Hurricane Irene, NCDA&CS field staff was asked to submit damage reports for their areas of responsibility to the EP command structure. An information gathering conference call was conducted to allow immediate input from staff on areas of greatest concern and needed resources. NCDA&CS established a hotline to receive calls from farmers and agriculture-related businesses to allow reporting of damages and to aid in

disseminating information immediately following the storm on available assistance. A webpage [www.ncagr.gov/paffairs/propertyprep.htm#after](http://www.ncagr.gov/paffairs/propertyprep.htm#after) was developed to connect farmers with State and Federal resources and to provide farmers with current information. Animal issues were largely dealt with at the company or county level with the assistance and guidance of NCDA&CS Veterinary and Emergency Programs Divisions. The Emergency Programs Division made contact with impacted counties to ensure that resources were available to support animal evacuation and rescue operations. EP also coordinated the county-to-county mutual aid of western NC counties to assist their eastern counterparts with animal issues. NCDA&CS collaborated with FEMA on an animal burial document. During the response activities to companion animal and agricultural needs caused by Hurricane Irene, Emergency Programs logistics provided supplies, equipment and transportation in response to specific mission assignments from the State EOC. The liaison personnel in Human Services and Logistics coordinated the movement of supplies and equipment to requesting areas and the assessment of damage related to the storm. Using maps and information developed by Emergency Programs Division ISS/GIS staff from the NCDA&CS Multi Hazard Food Firms Database and storm impact data from the National Weather Service, several divisions began to survey potentially damaged areas and facilities on Monday, August 29, 2011. Following Hurricane Irene, an NCDA&CS after action report was prepared by the EP planning section and distributed to all responders on October 28, 2011 allowing response and recovery efforts to be as comprehensively and thoroughly reviewed as possible.

## **TRAINING, EDUCATION & OUTREACH**

**5. Training of NC Veterinary Response Corps:** EP staff has continued to train veterinarians, veterinary technicians, students and other animal care providers throughout the State as NCVRC responders to work as part of our State Animal Response Team. Licensed veterinarians and technicians were trained at the NC Veterinary Conference in November. Students in their final year of the veterinary technician program at Asheville Buncombe Community College were trained in December. At the NCVRC trainings, EP personnel have trained participants on foreign animal disease response plans, biosecurity protocols, the practice of donning and doffing personal protective equipment, sheltering protocols, emergency management concepts and operations and Public Health topics. In addition, NCVRC members have been invited to other EP trainings, such as the AgEOC activation exercise.

EP has successfully incorporated NCVRC volunteers into the statewide volunteer database management system. In 2011, two of NCDA&CS's servNC administrators participated in the Autumn Charge II exercise. This helped the administrators gain knowledge about new features of the program. An additional EP veterinarian was also trained to be an administrator for servNC. More than 400 individuals have attended one or more trainings and 196 responders have registered in servNC. NCVRC also publishes a quarterly newsletter that helps keep responders informed about upcoming events and topics of interest.

An EP veterinarian provided training to third year veterinary students enabling them to graduate as credentialed disaster-response personnel. The NC State University College of Veterinary Medicine Disaster Response Credentialing Program is the only one of its kind in the nation and serves as a template for other vet schools. As part of their required curriculum, students are trained in Foreign Animal Disease response, Incident Command System, natural disasters including hurricane response, biosecurity, personal protective equipment and hazardous materials awareness. After completing the training and registering in servNC, each student will

be a credentialed responder in the NCVRC. An additional training was added to the program in the use of the CAMETs for local and regional sheltering response. In response to presentations by EP veterinarians at national meetings, there are currently efforts underway to replicate this program across the nation at other vet schools.

**6. Ag Disaster Information Exchange Workshops:** NCDA&CS held a series of regional workshops this summer to bring together partners involved in agricultural disasters. As part of the agenda, each agency gave a brief presentation on who they are and what they do with the goal of educating partners on how they might interface with each other in a disaster and what capabilities or resources (whether it is people or process or contacts or equipment) each brings to the table. The agenda also included presentations on the Animal Health Network, the Extension Disaster Education Network and NC Emergency Management's tools for situational awareness as well as the Foot and Mouth Disease Exercise Series hosted by NCDA&CS last summer. Participants included NCDA&CS Agronomic, Veterinary and Emergency Programs divisions, NC A&T State University and N.C. State University Cooperative Extension Service and local and state emergency management officials. These meetings provided an opportunity to improve our disaster planning process and to forge relationships in advance of a disaster.

**7. Annual AgEOC Activation Exercise:** The Emergency Programs Division organized a hurricane preparedness seminar on August 9 in the AgEOC to exercise and review AgEOC protocols utilized during an activation. Participants included representatives from NCDA&CS divisions, USDA APHIS Veterinary Services, USDA APHIS Animal Care, NC Horse Council, NC Farm Bureau and NC SART. The day included an ICS refresher, hurricane season forecast, and review of technological tools including WebEOC, Hurrevac and the time and mileage tracker. This meeting provided an opportunity to continue our disaster planning and to enhance relationships in advance of a disaster.

**8. Team Leader and Non-Governmental Organizations Sheltering Training Webinars:** Emergency Programs produced and conducted two webinars in July that provided NC NGOs background information on the roles that they could play on both the local and state level in natural disaster events. The contacts gathered through the webinars and subsequent meetings were used in the Partners Calls conducted during the Hurricane Irene response. The webinars were the catalyst that eventually produced the sheltering and assessment teams that were used to respond to Hurricane Irene. The webinars will likely be used each year to update NGO partners and prep for hurricane season response.

**9. ICS Training:** EP devoted time, labor and funding to train NCDA&CS Division personnel in the incident command system in 2011. EP conducted four regional one-day trainings on ICS 100 and 200. ICS 300 and 400 were one-day courses offered in Raleigh. These ICS trainings provide inter-operability and surge capacity affecting NCDA&CS divisions during crisis or emergency situations. Further, ICS training is part of the National Incident Management System which NCDA&CS has adopted to receive preparedness funding from the Federal government (for example, the State Homeland Security Grant Program).

2011 ICS Training						
	Date	ICS 100	ICS 200	ICS 300	ICS 400	Total
NCDA&CS -Western Ag Center- Arden NC	5/16/2011	9	5			14
NC-CES Guilford Center	5/17/2011	9	4			13
NCDA&CS F&D Lab	5/18/2011	30	23			53
NCDA&CS Cunningham Research Station	5/19/2011	31	17			48
Eaddy Lab - Agronomic	8/23/2011			29		29
Eaddy Lab - Agronomic	8/24/2011				29	29
<b>Total</b>		<b>79</b>	<b>49</b>	<b>29</b>	<b>29</b>	<b>186</b>

In July, seven EP team members shadowed the NC Forest Service in several ICS positions during the Simmons Road Fire event. This experience proved extremely beneficial for staff who learned valuable details and pointers from the NCFS who have been implementing ICS for decades and recently joined the department.

**10. County and State Fairs:** Aedin's Law regulates the permitting of contact animal exhibits at sanctioned agricultural fairs in North Carolina. The rules outlining the implementation of this law went into effect at the beginning of the 2006 fair season. In 2011, EP staff made site visits to many of the fairs prior to fair season to discuss the permitting process, answer questions and offer customized solutions to address issues related to Aedin's Law compliance. Due to funding restrictions, many of these visits were conducted by telephone. There continue to be fewer questions or issues each year as a result of the work staff has done educating fair managers and exhibitors. A concerted effort is still needed, however, to ensure that challenges associated with new exhibits at a fair are addressed and that exhibitors new to NC are aware of the rules and regulations. Attending the NC Fair Convention and State Fair Livestock Superintendents' meeting are two venues for continued interaction with fair managers and exhibitors.

The EP field staff continued implementation of the web form developed by EP's Information Support Services section for tracking inspections of animal contact exhibits. These surveys are used during the Aedin's Law inspection process to evaluate compliance with the rules and regulations governing animal exhibits at sanctioned agricultural fairs. The online application form was used to catalog applications for the 2011 fair season and several exhibitors completed the application process online. These web forms are beneficial in decreasing the amount of time needed to enter, track and summarize data related to Aedin's Law compliance.

**11. Foreign Animal Disease Diagnosticians Workshop:** EP has four USDA-trained FADDs and one veterinarian-trained in the USDA wildlife foreign animal disease program. Utilizing funding from our DHS training and exercise grant, EP provided funding for one Veterinary Division veterinarian to attend the two-week FADD course on Plum Island, New York in June 2011.



**12. NC Veterinary Conference:** The NCVC Public Practice Committee, chaired by an EP veterinarian, prepared the 2011 agenda for the Public Practice Track. Topics included: An Introduction to NCVRC; Food Recalls: The Ins, Outs, and Misconceptions; An Update on Current Issues from NCDA&CS' Animal Welfare Section; Raw Milk, Cow Shares, Goat Shares: Laws, National Trends, and PH Concerns; Rabies: What You Need to Know About the Law, Vaccines, and Epidemiology; Rabies Q&A session; Current Updates and Issues in USDA Veterinary Services; and

Biosecurity for Animal Response and the Use of PPE: Audience Participation Workshop. The 2011 NCVC Public Practice Track held in November was also a NCVRC training, during which participants were encouraged to register in servNC, the statewide volunteer database for medical professionals.

**13. EP Booth Setups/Education and Outreach:** As part of EP's outreach and education, EP displayed a booth at several venues to inform attendees about emergency preparedness and response related to agriculture. In 2011, sites included the Southern Farm Show in February, Raleigh's Stormfest in June and the USDA's Third Annual Emergency Preparedness Fair in September. The CAMETs were also displayed at the National Weather Service & Natural History Museum's Stormfest in June and at the USDA's Emergency Preparedness Fair in September.



**14. Army Civil Affairs Unit Training:** EP staff is conducting training events with Army Civil Affairs Units preparing for deployment to the Middle East and the Special Warfare Center & School at Ft. Bragg. Trainings are focused on agriculture practices and concerns including the significance of biosecurity for protection from zoonoses and potential foreign animal diseases traveling back to NC. These trainings, four in 2011, are in partnership with Cooperative Extension and stress the economic impact of FADs to NC and U.S. agriculture.



## EXERCISES

**15. Fixed Nuclear Plant Exercises:** In addition to participating on the Radiation Protection Emergency Response Subcommittee of the NC Radiation Protection Safety Committee, Emergency Programs participated in two fixed nuclear plant exercises with SERT. The plants involved were McGuire on August 9 and Sherron Harris on November 29. EP personnel were located at the county EOCs closest to the plant and at the State EOC in Raleigh. A simulated incident occurred at the respective plant with progressive challenges to the power company and Radiation Protection staff until a hypothetical radiation release occurred with a resulting requirement for protective actions to protect the responders, the employees, and the public.

Influencing factors such as weather, type and amount of radiation released, areas and populations affected and special needs requirements had to be considered in making decisions. Both of these exercises were Emergency Planning Zone types so the participation of EP in field monitoring was not required. Support was provided by the GIS Section in identifying potential exposures and losses to agriculture and food processing. Companion animal issues were discussed as well as instructions for whether or not sheltering of production animals was appropriate. Both exercises went well and were well received by the NRC reviewers.

**16. NC Emergency Management Bioterrorism Exercise:** EP, along with DPH, assisted in planning and leading a State Bioterrorism Seminar for executives of State agencies in March in preparation for the Functional Exercise scheduled in May. EP coordinated presentations from six divisions on regulatory mandates and capabilities within NCDA&CS. In May, the NCEM's work to update the State's Bioterrorism Annex to the EOP was exercised with a two day Functional Exercise in which NCDA&CS and DPH were the primary participants. This Exercise allowed the State's partners to respond to an intentional disease event in food animals/livestock and humans from multiple sources. It allowed agencies to understand how such an event might develop and how different agencies may lead or have significant roles in the management. The department was represented by three divisions during this two-day exercise (EP, Veterinary and Public Affairs).

**17. National New Madrid Fault Exercise:** EP personnel participated in the New Madrid Fault Exercise on several different levels. Injects for the exercise were provided that focused on both companion animal as well as ag/livestock response. Personnel also served on planning committees for the ESF 11 component of the exercise. Finally, personnel participated in the exercise itself, serving on the Pets Multi-Agency Coordination Team that operated ESF issues at the USDA's EOC in Riverdale, Md. Deliverables from the exercise that were products of EP personnel included just-in-time training recommendations/protocols, mega-surge personnel resources concept and descriptive models of temporary housing animal sheltering operations for areas that established long term human sheltering camps. As a result, EP personnel continue to be asked to serve on national subject matter expert planning groups to produce best practices for volunteer recruitment/incorporation for natural disasters as well as working groups developing various animal response training programs on regional and national levels.

#### **TEAMS, TASK FORCES, WORKGROUPS & COMMITTEES**

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**18. Vector-borne Disease Workgroup:** Organized by the Division of Public Health, this workgroup meets quarterly to discuss current trends in vector-borne diseases, such as West Nile Virus, Eastern equine encephalitis, Rocky Mountain spotted fever, Lyme disease and others. Participants include the Division of Public Health, NC Department of Environment and Natural Resources, NCDA&CS, NCSU CVM, NC Wildlife Resources Commission and others.

**19. Public Health Regional Surveillance Teams:** In 2011, PHP&R divided the state into four Public Health Regional Preparedness Offices. Each office provides support for citizens and public health officials in their designated geographical regions. The 100 North Carolina counties are divided into Central, Western, Eastern and City Readiness Initiative regional offices. Each region consists of planning consultants, training and exercise facilitators, industrial hygienists, pharmacists, and program support specialists. With the recent reorganization of these teams, EP staff members plan to re-engage with the new and long time team members to provide agricultural planning and expertise to these regions.

**20. NC Food Safety and Defense Task Force:** EP staff are active participants on this task force. The FDTF meets bimonthly and is a multi-agency group consisting of representatives from the following organizations: NCDA&CS, NC DHHS, Division of Public Health, NC DENR, NCEM, USDA, Federal Bureau of Investigation, U.S. Food and Drug Administration and NCSU. EP participates on two subcommittees, Education and Exercise Committee and the Communication and Outreach Committee.

**21. Emerging & Zoonotic Disease Workgroup:** EP participates on this NC DPH organized working group. Participants include: NC DPH, NCDA&CS, NC WRC, USDA Wildlife Services, NCSU CVM and NC Animal Rabies Control Association. This group meets quarterly to discuss zoonotic disease concerns in NC.

**22. State Emergency Response Team:** The Emergency Operations Center liaison is a member of the SERT and is the on-call person when the SERT is activated. In addition, this person informs the NCDA&CS Executive Staff and Division Directors of on-going disaster and emergency issues. The SERT liaison is the point of contact for the NCDA&CS at the State EOC during events and exercises. This is an important position for keeping the department informed early for rapid response by agricultural partners and to understand how the sector is positioned with the state's overall response scheme during an event.

EP staff members represent the department on the SERT Credential Review Committee as North Carolina moves to develop standards for Type 2 and 3 Incident Management Teams.

**23. State Emergency Response Commission:** The EP Director is a SERC Commissioner appointed to three positions within the SERC subcommittee structure. One position involves serving on the Regional Response Team Advisory Committee. These teams respond to hazardous material response requests within their geographical region; there are seven regions across the state. The EP Director has participated in the reviews of the Hazardous Materials Regional Response Study, which is being conducted by NC Emergency Management. The second appointment is co-chair for Homeland Security Domestic Preparedness Regions (DPRs) State Committee. The regions have become a focal group for identifying regional vulnerabilities through county risk assessments which will be used to determine the need for homeland security funding to address preparedness and response measures. EP participated in the review of state risk analysis data to assure key food and agriculture facilities were identified in the report. Consultation was held with subject matter experts to assure the facilities were critical to the Sector. The third committee is the Critical Infrastructure and Key Resources Working Group which is responsible for developing the state's CIKR plan.

**24. NCEM State Training and Exercise Committee:** EP represented the NCDA&CS at all meetings of the NCEM State Training and Exercise Committee to better coordinate preparedness objectives across North Carolina. This committee allows the NCDA&CS to integrate and coordinate departmental exercise objectives and training goals with multiple agencies including NCEM, NC DHHS, DPH, NC OEMS, NC Department of Transportation, University of North Carolina system universities and the NC National Guard for the betterment of statewide exercise and training planning.

**25. NC Information Sharing and Analysis Center:** The EP Director serves as an appointed member of ISAAC Governance Board and has brought the food and agriculture perspective to

this group. ISAAC serves as the focal point for collection, analysis and dissemination of information on possible terrorist and criminal threats against North Carolina. Law enforcement agencies from across the State submit and exchange information on homeland security and gang activities. Experts at ISAAC will evaluate that information and share it with other appropriate agencies to follow up on these tips. Additional experts from NCDA&CS are included in specific discussions involving the ISAAC as needed.

**26. NC Domestic Preparedness Regions:** The Domestic Preparedness Regions were structured by State NCEM to develop and expand regional prevention, preparedness, response and recovery capabilities for all hazards, both man-made and natural. EP staff participated on their local DPRs.

**27. Military-Civilian Task Force for Emergency Response:** EP staff participated in quarterly meetings with task forces at three of the four military bases in North Carolina: Fort Bragg, Cherry Point and Camp Lejeune.

**28. Chemical, Biological, Radiological, Nuclear and Explosive Task Force:** EP staff participates on the SERC's CBRNE task force along with personnel from NCFS. This task force meets quarterly, and EP briefed participants in July on the NCDA&CS's mission and capabilities.

**29. National Alliance of State Animal and Agricultural Emergency Programs:** An EP veterinarian represents North Carolina serving as a board member (Vice President) for NASAAEP. This group mirrors the National Emergency Managers Association and provides a forum for states to address national, regional, state and local agriculture response and preparedness issues. EP provides two representatives to serve on the Best Practices Working Groups which include: Training Working Group, Disaster Veterinary Medicine Working Group and Planning/Resource Management Working Group. NASAAEP continues to: meet by conference call monthly; organize a summit annually; and document and share work done throughout the year by the working groups through a resources library housed on the alliance's website.

**30. Southern Agriculture and Animal Disaster Response Alliance:** SAADRA is an interactive network, involving states at risk from similar natural and disease disasters, created to further planning, mitigation, preparedness, response and recovery efforts related to animals and agricultural infrastructure. Government veterinarians from Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee and Texas continue to collaborate on issues that affect all member states. An EP veterinarian was one of the charter members and still represents North Carolina in this collaborative group. In 2011, SAADRA continued working a regional approach to file data for the DHS sponsored Food and Agriculture Sector Criticality Assessment Tool by sharing individual state applications with various agriculture and food sectors. In addition, SAADRA states shared resource lists that show what resources could be shared during a large scale event using the Emergency Management Assistance Compact through State EM organizations. Emergency Programs personnel also represented NC and SAADRA at Government Coordinating Council meetings to share its experience in Hurricane Irene and the impact on agriculture's infrastructure. Recommendations were made to DHS and USDA on behalf of agriculture to better funding and response resources provided to farmers during natural disasters.

**31. State Agricultural Response Team/Companion Animal Response Teams:** In May of this year, the NC SART Board of Directors voted to rename the team to the State Agricultural Response Team. Formally, the team was focused on animal disaster preparedness and the board broadened the scope to be inclusive of all commodities. EP staff have been involved with SART on a national level offering expertise to other states in need of developing a SART. In addition, each field staff member has been engaged in their respective local CARTs, assisting with: development, education, local plan updates, increasing the volunteer pools and exercises. In 2011, EP staff worked with several counties on updating and establishing their pet sheltering plans and facilities. SART and CART members include: state and local EM agencies, law enforcement agencies, NCSU CES, the NC Division of Public Health, the American Red Cross, local animal control, private veterinary practitioners, NC Farm Bureau and NCSU CVM.

**32. Poultry Disease Advisory Committee:** The Poultry Disease Advisory Committee is an advisory group set up by the Commissioner of Agriculture with oversight by the State Veterinarian. Active members are selected by and serve at the pleasure of the Commissioner. The committee is kept apprised of poultry diseases affecting our industry through regular communication by the Director of Animal Health Programs-Poultry.

**33. National Veterinary Stockpile Workgroup:** Following an exercise in October 2009, EP continued a collaborated effort with the NCEM logistics section to craft a plan to coordinate requests, storage, transportation and management of NVS supplies. A final memorandum of agreement and standard operating procedures between NCDA&CS and NCEM was signed in 2011.

**34. Feral Swine Study Committee:** EP personnel participated on the Feral Swine Study Committee that was mandated by Session Law 2009-89. This committee included a wide variety of stakeholders who presented concerns and discussed possible solutions for addressing the feral swine population in North Carolina. The findings of the Committee were presented to the General Assembly and led to the passage of Session Law 2011-369 that outlaws the removal of live feral swine from a trap and outlines the requirements for tagging and tracking swine when transported off a farm.

**35. Partnership for Food Protection, Interactive Information Technology Workgroup:** Established in 2008 by the FDA, the purpose of the PFP is to bring federal, state, local, territorial and tribal representatives with expertise in food, feed, epidemiology, laboratory, animal health, environment and public health together to develop an Integrated Food Safety System. The importance of this work was underscored by the 2011 passage of the Food Safety Modernization Act. The IIT WG supports the other workgroups of the PFP on matters of technology and works with federal, state and local representatives to assess technology offerings and needs and to provide guidance to food, feed and dairy programs. An EP programmer represents North Carolina on this workgroup. Current workgroup projects include: determining core data elements of food licensing and inspection systems to assist future system interoperability and data-sharing projects and compilation of a guidance document to assist state and local programs with evaluating their current operating procedures and inspection systems, with an eye to gathering enhancement/replacement requirements.

## SPECIAL PROJECTS

**36. Animal Welfare Section Study:** In 2010, the legislature requested that NCDA&CS conduct an animal welfare study provided for in Session Law 2010-31. NCDA&CS organized a workgroup to tackle this request. As part of this workgroup, EP developed an electronic survey through Survey Monkey and disseminated it to all NC county managers for completion. The information gathered from this survey will be used to improve existing state programs and evaluate the need for changes or additions to those programs. EP analyzed and summarized the survey data for the workgroup in early 2011.

**37. Southern Association of State Departments of Agriculture Annual Meeting:**

Commissioner Troxler served as President of the Southern Association of State Departments of Agriculture and hosted the Annual SASDA meeting in Greensboro in June. This meeting brings together Commissioners, Secretaries and Directors from the Agriculture Departments of 17 southern states and territories to discuss national and state level issues. To assist in planning for this event, an EP staff member chaired the programs/logistics committee which



included division representatives from EP, Research Stations and Marketing. Committee responsibilities included logistical planning for: hotel and meeting room needs; spouses' program; audiovisual and technical needs; speaker and presentation details; NC embellishments; registration; and more. The project was a collaborative effort that brought together employees from many divisions to successfully plan the details of this four-day event.

**38. Agricultural All Hazards Incident Management Team and Agricultural Emergency Response Team Development:** The concept for Agricultural AHIMT's originated from EP personnel's participation in a work group sponsored by Emergency Management to develop All Hazard Incident Management teams to serve North Carolina during disasters. It was recognized that an All Hazards IMT needed to be developed to address ag specific events. In 2011, groundwork was laid to describe and develop such an IMT. In addition to the IMT, Hurricane Irene's impact on the farming community emphasized the need for Emergency Response Teams that would help farmers recover from the effects of such events. Work has begun and continues to develop these teams that will be coordinated on the State level (Ag EOC) and dispatched to the local level (County EOCs) to accomplish tasks approved by the Commissioner during catastrophic events.

**39. Co-Location Sheltering Assistance Visits:** In 2011, EP staff worked with NCEM and PHRST Industrial Hygienists in Regions 2 and 3 to coordinate and conduct sheltering assistance and advisory visits in Columbus and Bladen counties. These visits are conducted at the request of local EM to aid in improving their human/animal co-location plans. This project is ongoing pending any county requests. Scheduling conflicts prohibited the Columbus County visit and due to conflicts with local staff, both counties were supplied with education and evaluation forms allowing them to conduct their own visits with county level Public Health and Animal Control staff. An EP veterinarian visited Bladen County for an informal follow-up on their proposed

shelter for any further questions. Both counties are planning for spring Functional Exercises to train staff and practice the activations of these sites.

**40. Companion Animal Mobile Equipment Trailers:** EP partnered with NCEM and other industry/animal humane partners to design and build the first installment of the CAMETs. Private donations helped pay for the CAMETs that EP procured beginning in late 2006. NCEM applied for and received a US Homeland Security Grant to further expand the program in 2008. There are approximately 40 CAMETs across the state. EP staff have assisted with: procurement, repairs, specifying standards, maintaining backup inventory, displaying the CAMETs at trainings, conferences and workshops, and deploying the units to actual animal sheltering events. As mentioned previously, EP continues to train responders throughout the State with Advanced Regional CAMET and Sheltering Trainings. In 2011, these modules for training volunteers were made available online at [www.ncagr.gov/oep/sheltering/training.htm](http://www.ncagr.gov/oep/sheltering/training.htm).



**41. Depopulation, Disposal and Decontamination Research and Development:** Disposal technologies such as composting, rendering and gasification continued to occupy a significant amount of time and effort for EP and Veterinary Division staff during 2011. The EP coordinated funding request to complete full scale testing of the mobile gasification unit in Duplin County was approved and is scheduled to be undertaken in cooperation with EPA and Ag Protein during FY 2012. The equipment will be modified and updated and testing will evaluate the capacity of the equipment to operate under real-world conditions.

EP staff continues discussion on mortality management and carcass disposal with USDA, EPA, industry and response organizations. The national policy regarding the management of these issues is still in discussion among EPA, USDA and Homeland Security. Proposed time of emergency contract specifications are still in the hands of NCDA&CS purchasing officers with difficult questions regarding indemnity and contract format under review.

**42. Foam Depopulation:** EP continues its role in the evaluation and research into effective foam depopulation using low expansion foam. Regular training and exercises with NCDA& CS staff and industry personnel continued throughout the year. Areas of special significance related to this technology included the April/May response to tornadoes in Alabama, response to Hurricane Irene related poultry disease in North Carolina, the supply of nearly 2,500 gallons of foam concentrate and the loan of \$100,000 in pump, hose and related fire equipment to the NCFS for use on four major forest fires in North Carolina, special foam equipment training and evaluation in Mississippi, response to several industry and institutional incidents related to inclement weather and disease, and joint training with industry in the proper operation and maintenance of foam systems. From lessons learned during these events changes have been made and are continuing to be made in the hardware, equipment, supplies, and procedures related to foam technology and other applications of the foam response resources.

**43. State Homeland Security Grant Planning:** The purpose of the State Homeland Security Strategy is to provide strategic direction for the State of North Carolina and its jurisdictions to

prepare for, prevent, respond to, mitigate and recover from a catastrophic event, either natural or man-made. This is especially important for two distinct reasons: 1) the high frequency of natural disasters that occur in North Carolina and 2) the potential for future acts of terrorism. EP has maintained a Food and Agriculture Sector presence in the writing and priority setting for the SHSS. In 2011, NC agriculture was awarded \$540,000 in SHSGP dollars.

**44. National Incident Management Compliance Assistance Support Tool:** EP ensured NCDA&CS' 2011 participation in the state and national effort to comply with all Homeland Security Presidential Directives through submittal of specific training and exercise information and data to the NIMSCAST process. This process is a web-based self-assessment instrument for state, territorial, tribal and local governments to evaluate and report their jurisdictions' achievements of all NIMS implementation activities released since 2004.

**45. PRRS Control Project:** EP personnel continue to support the swine industry efforts to establish a Porcine Reproductive and Respiratory Syndrome local control program. Members of industry have agreed to share data on farm location and PPRS status that will be used to understand the extent of the PPRS problem, examine how the virus is moving from herd to herd, and identify potential control strategies. This industry-led effort will be supported with technological tools that will enhance data collection, transfer and visualization.

**46. Audit 3D Contractors Across the United States:** As a specific part of the Foam Grant with USDA, EP personnel conducted evaluation visits to the four currently identified 3D contractors under the National Veterinary Stockpile program. The purpose of these visits was to evaluate the condition of the foam depopulation equipment that had been supplied to these contractors by the USDA and ability of the contractors to use and maintain the equipment. A report of each visit and a summary with corrective action recommendations was sent to USDA. Based on this project additional work in the area of training and equipment maintenance was added to the scope of the 2012 Foam Grant. This will include a training exercise in North Carolina and likely other trips across the country to work with the 3D contractors, USDA and State response organizations.

## **TECHNOLOGY**

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**47. Inspectors' Daily Log in Food Firms:** A new feature for the Food and Drug Protection Division's Food Firms application, the Inspectors' Daily Log, allows the FDPD to track and fully account for the time and activities of its food inspection staff. The log is fully integrated with the Food Firms inventory of firms and its tracking of complaints and inspections. This functionality assists in recording accomplishments and improves the accuracy of reports. Included with the Daily Log are tools that mine reported activity and assist FDPD with conducting self-assessments. Full roll-out of the Daily Log occurred in July, following training sessions conducted during June across the state.

**48. The Firms Database:** Representing the next major revision for FDPD's Food Firms and Feed Firms applications, the Firms Project collects inspections, complaints and other regulatory activities conducted by FDPD's Food, Feed and Grade "A" Milk Programs into a single integrated food safety system. The Firms Project includes separate interfaces for managing program data, while maintaining a unified storage of data, so that users can view inventories and activities across programs.

**49. Integrated Food and Agriculture Resource Management:** IFARM is both a rebranding and an enhancement of the NC Food Defense Event Management system that was released by EP in 2010. Having gone live in August of 2011, IFARM is built on the same platform as NCFDEM but removes the food-centrism. Along with the shift to support all agricultural events and incidents, improvements were made to time tracking; in addition, modules were rolled out for storing Incident Action Plans and Situation Reports, for reporting by involved agencies and divisions and for tracking agriculture department resources. The tool continues to be used extensively by the FDPD for food recalls and has also been used by the department for the April 2011 tornado response and for Hurricane Irene response and recovery operations. During Hurricane Irene, IFARM was used to improve the efficiency of collecting disaster work hours for reimbursement, to track damage assessments conducted by FDPD across the eastern part of the state and for distributing planning documents.

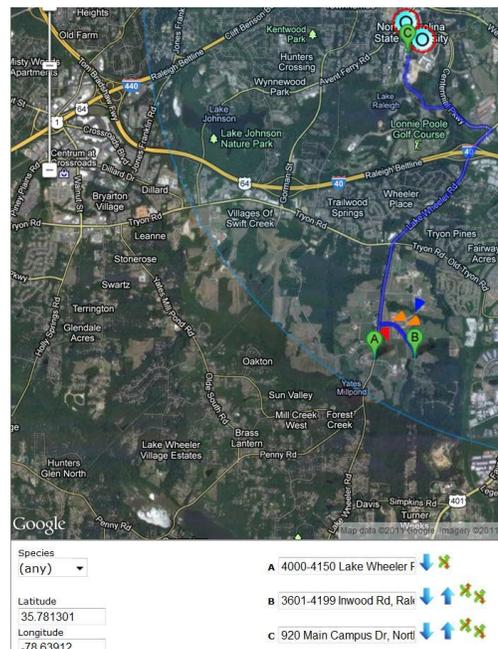
**50. Wireless Internet Access in AgEOC:** Reliable wireless in the AgEOC had been a major issue for several years. In early 2011, a new wireless system was installed. It is a fully functional system that supports significantly more users and now enables connection to the internal network. With new technology like tablets and smart phones relying more heavily on an active Internet connection, it is much more convenient to connect to the Internet in the AgEOC and will be a valuable time saving tool during activations. It will also reduce the need for hard wiring and reduce tripping hazards during activations and exercises.

**51. Change from Bing to Google Maps with Improved Routing:** Previously the MapIt tool in the Animal Health Program database utilized the Microsoft Bing API. This was originally done for licensing reasons, but it was not very robust. This year we switched to using Google Maps as the API source for the MapIt module. This greatly enhanced the ability of AHP users to visualize and show farm data; up to 50 miles at a time, compared with the previous 10. In addition, the code base for this project allows users to integrate with Google Maps proper and to export or import saved searches that "remember" and archive their prior re-routing projects. Now, with advanced routing, quarantined farms can be avoided or assigned a pickup priority.

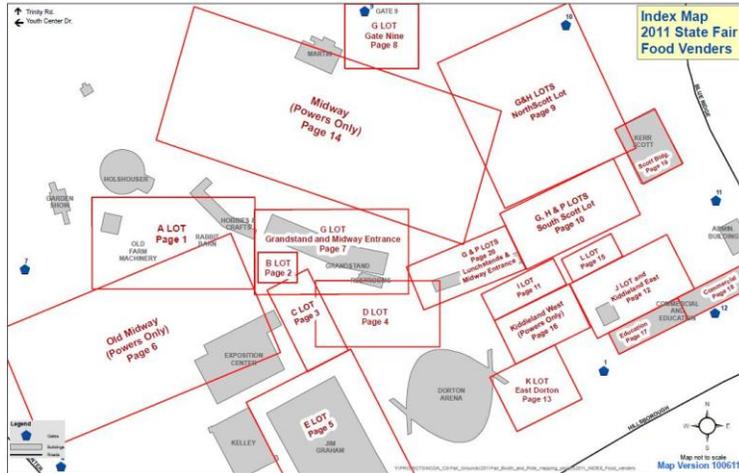
Other improvements to the AHP include redesigning industry access capabilities — a feature that allows industry partners to see limited AHP information — in such a way that it is securely using the same "base" code as internal staff. This cuts down on development time and ensures that all users get updates at the same time.

The security system and management tools for AHP were enhanced to allow access to records in very restrictive, but independent, scopes such that very fine-tuned filtering of features is now possible.

Search capabilities in AHP were also enhanced to allow for significantly faster, more complicated searching. In addition to the standard searching, dynamic search capabilities were greatly expanded to include many other types of searches.



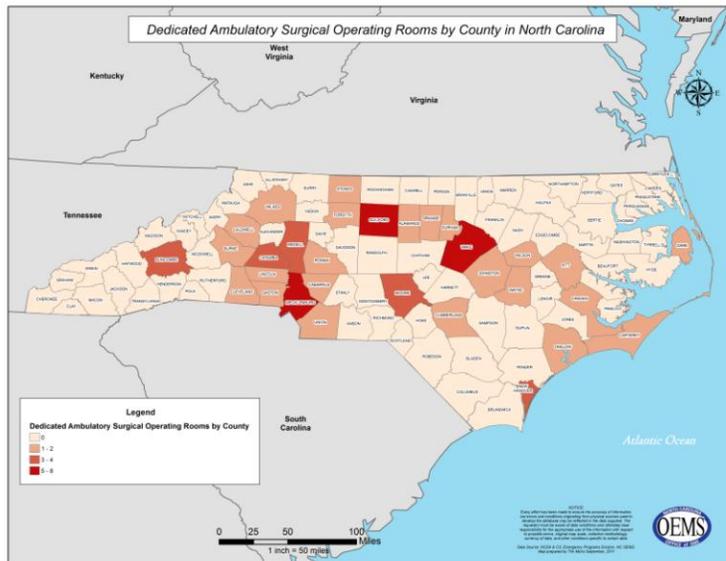
**52. Map Booklets for State Fair:** Emergency Programs GIS staff has been working with the State Fair staff over the last three fairs to map the independent assigned vendors. ISS has accurately mapped the vendor locations but utilizing this geographic information while walking outside on the fairgrounds has been difficult in the past.



This year ISS created two map booklets that better organized the data for use in the field. The first map booklet was focused on the needs of the fair staff. They used the maps to assure proper assignment and “spotting” of the independent vendors. The second map booklet was focused on food safety and inspections. It assigned color codes to vendors to designate what type of inspection was needed. These map booklets received a lot of praise and

several other groups requested similar maps.

**53. House Select Committee Mapping Project:** In order to better serve the citizens of North Carolina, a meeting was held between NC legislators and the NC Department of Health and Human Services to assess the state of the health care facilities in the state. An integral part of this meeting was to create maps and graphics to highlight the distribution of these facilities throughout North Carolina. Fifty-four maps were created, highlighting everything from distribution of hospice care facilities to the presence of dedicated ambulatory surgical operating rooms by county. These maps will ensure that proper funding for future facilities will be available and assist planners with locating these new facilities.



**54. County GIS Data Collection:** The 2011 data collection project included a review of each county’s website, checking for any posted data layers that would benefit the State’s GIS data collection needs. Many new layers were obtained from the NC Floodplain Mapping Program.

In addition to gathering available GIS data, as much information as possible was shared with other state agencies to avoid duplication of efforts. Our statewide GIS parcel layer now includes data for 93 counties.

That parcel layer is shared with several state agencies including Emergency Management, State Property Office, DHHS Public Health, DHHS Center for Health Statistics, DHHS Office of Emergency Medical Services, Dept of Commerce and at least five divisions within DENR. This makes it one of the most widely used datasets within state government.

At almost 120 man-hours to complete, this project was well worth the investment. Conservatively the collection, standardization and distribution of this dataset easily saves the state \$100,000 in reduced travel costs and improves the quality of any referenced dataset.

**55. State Fair Mobile Application:** For the 2011 State Fair, ISS deployed a mapping tool for mobile devices including any Android operating system and the iPad. ISS leveraged the Google Earth application that exists for both and pointed to our globe. Anyone could use their existing device and see both vendors' contract names as they walked the fairgrounds. This year it was mainly used by NCDA&CS staff to set-up vendors, but in the near future we hope to make it available to public safety.

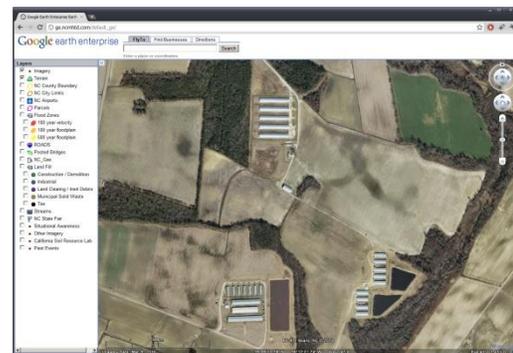


**56. Enhancements to NCDA&CS Earth:** In 2010, the State of North Carolina acquired six inch aerial photography statewide. This is the first time statewide high resolution imagery has been captured for North Carolina. In 2011, this imagery became available and it has been consumed and published in our virtual globe. High speed access to the imagery is now available in the Enterprise Client, in web browsers and via WMS.

Enterprise Client

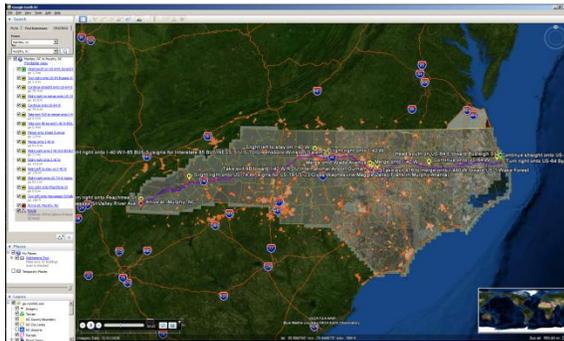


Browser

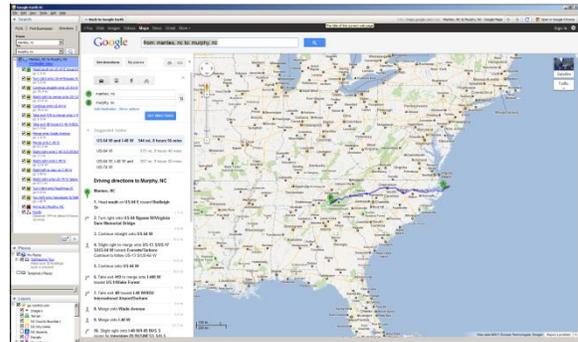


Search tabs for “Fly To”, directions and businesses were added to the EC. The “Fly To” tab will accept many different search terms including: a street, a street address, a city, a county, a state name and coordinates, *etc.* The directions tab returns driving directions from searches on terms similar to those of the “Fly To” tab. The directions tab can also return printable directions and generate a tour fly through.

**Driving Directions (Manteo to Murphy)**

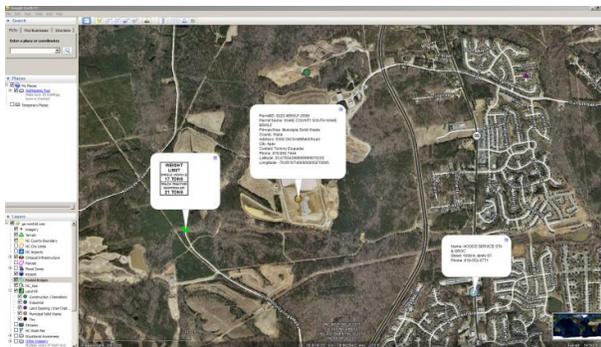


**Printable Directions**

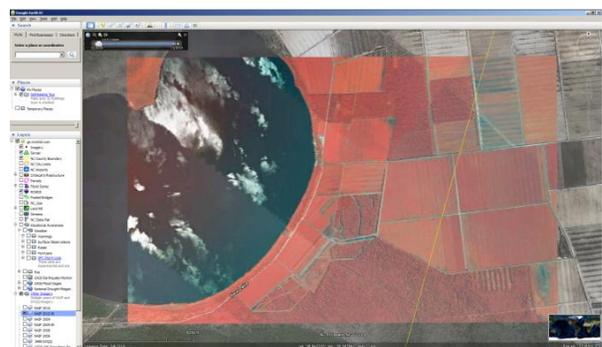


Numerous layers were added over the last year including landfills; bridges with posted weights; gas stations; past events, which includes the April 2011 tornadoes; OEMS medical facilities and fire stations. Imagery resources were added; leveraging our assets to include multiple years of NAIP (true color and color infrared), the 1998 DOQQs and the USGS 24K topo maps.

**Posted Bridges, Landfills, and Gas Stations**

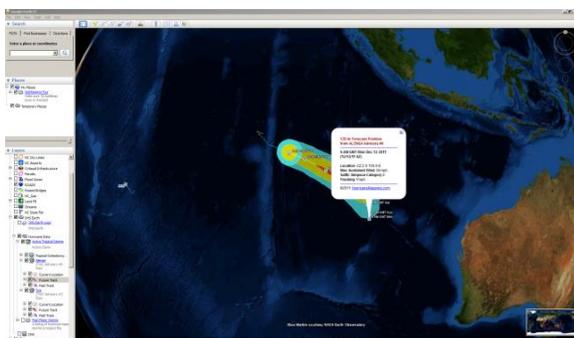


**2010 NAIP CIR**

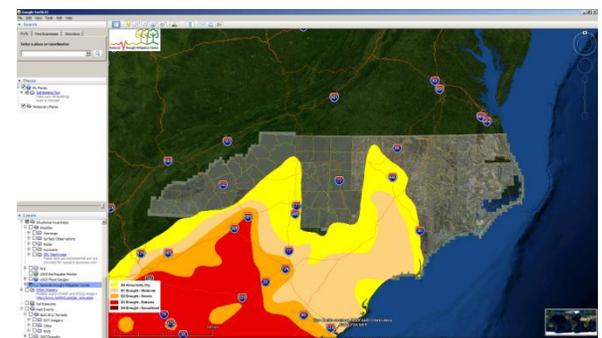


Numerous dynamic KML services were added including: weather, wildfire, flood gauges, earthquake monitoring, drought monitoring, DHS Earth and soil data. These services are provided by third parties. Many of them are dynamic and updated frequently (15 minutes – hourly depending on the service).

**Hurrevac via DHS Earth**



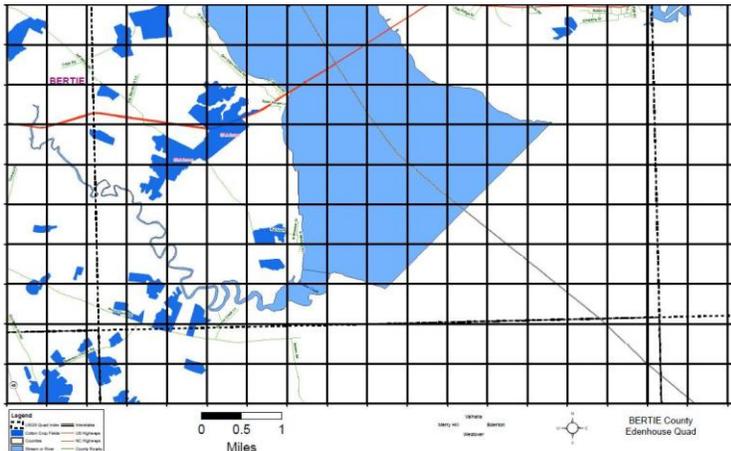
**Drought Monitor**



**57. Standards Division's Gas Station Database Quality Control:** EP ensured the accuracy of latitude and longitude coordinates for the Standards Division's gas station database. Incomplete addresses, misspellings, post office box numbers entered as complete addresses, incorrect zip codes and closed stations all contributed to the complexity of this project. This project's results will save the Standards Division time in and mileage conducting site visits and will aid future projects, such as mapping gas stations with generators close to hurricane evacuation routes. Over 1,600 addresses in the original dataset were improved from partial or incomplete to true physical 911 addresses. The latitude/longitude coordinates derived from this project will be used to spatially enable this data making it possible to do routing in the near future.



**58. Boll Weevil Trapping Project:** In July 2011, the GIS team, with the assistance of the



the Farm Service Agency, created maps of cotton fields that illustrate the trapping of Boll Weevils for the Plant Industry Division and the Cotton Foundation. The end result was the development of a Global Positioning System vehicle navigation system that a quality control manager could use to review contractors' work and save time. This project uses Visual Basic.NET programming code to create a series of maps based on the United States

Geological Survey quad in which the cotton fields are located in North Carolina. All cotton field maps exist as 22" by 28" PDF documents and in black and white hard copy.

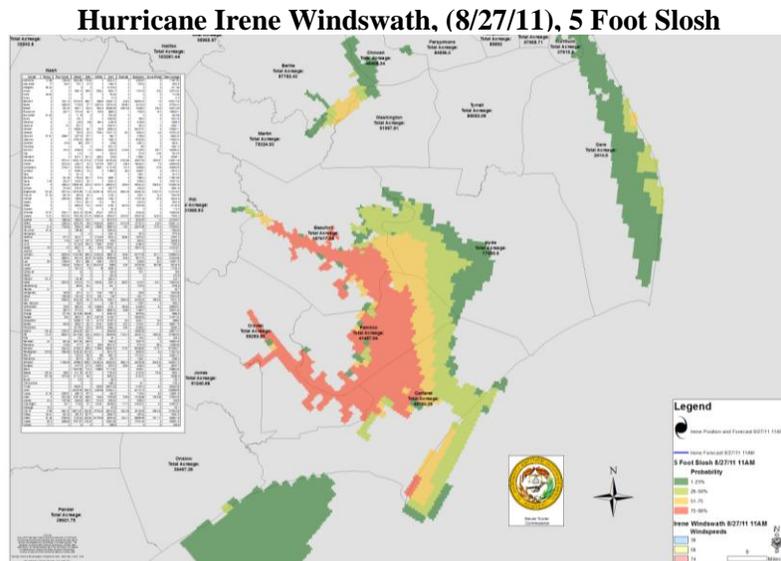
**59. Sweet Potato Weevil Trapping Project:** In July 2011, ISS created maps of sweet potato fields for the Plant Industry Division's weevil trapping efforts. Data for this project came directly from the NC FSA. This project uses VB.NET programming code to create a series of maps based on the USGS quad in which the sweet potato fields are located in North Carolina. EP generated and delivered the hard copy maps to the Plant Industry Division before trapping season began. This project reduced the need for contractors and allowed Plant Industry Division staff to do the majority of the trapping.

**60. Resource Tracking Module Added to IFARM:** The Integrated Food and Agriculture Resource Management application was expanded to include an inventory control tracking module for all major agriculture department assets that could be re-deployed when a declared emergency required the moving of assets from one division to another. This was in response to a long-standing need of the Emergency Programs Division to be able to efficiently re-deploy those resources which can be re-deployed during an emergency operation.

This process takes into account the readiness of equipment to be deployed and gives managers at different division locations the ability to quickly change the status of equipment. This effectively makes available an inventory preparedness system where individual assets can be inventoried for readiness when an incident is identified. Inventory items can be in one of many different states: available, reserved, deployed, in repair or not useable. This system makes it possible for equipment to be inventoried, deployed and assigned to alternate division locations and made ready for approaching events such as hurricanes.

**61. Hurricane Irene Mapping and Spatial Analysis:** ISS staff tracked Hurricane Irene in relation to the impact the storm would have on agriculture infrastructure throughout the State. Starting at 48 hours out, the GIS team mapped, analyzed the storm's potential impact and provided statistics on agricultural facilities that were projected to bear the strongest winds and potential flooding from the storm. There were three sets of products for each dataset including: 48 hours before landfall, 24 hours out and landfall.

Datasets that were analyzed include: packing plants, poultry farms, swine farms, other livestock, food manufacturers, gas stations and crops. The information derived about high wind and flooding effects were shared with the operations section, the Incident Commander and industry partners. Above is an example of the crop analysis at landfall. The dark red area had the highest probability of flooding.



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**62. Hurricane Irene Support for OEMS:** ISS created maps, Google KMZs and tracked Hurricane Irene in relation to the impact the storm would have on the fragile medical population facilities. ISS analyzed the storm's impact and provided contact information for facilities that were projected to bear the strongest winds from the storm. ISS also provided NC OEMS staff with a list of counties with populations that would be affected by winds in excess of 75 miles per hour.

## **EQUIPMENT**

**63. Foreign Animal Disease Quarantine Rapid Deployment Equipment:** EP staff members have continued to maintain this equipment and train personnel in the use of this response equipment, to maintain a state of readiness for deployment in the event of an animal disease outbreak or events caused by natural disaster. The applications, flexibility and durability of the response equipment was tested in the diverse events that occurred during the year, including freezing weather, tornadoes, fires, floods and disease responses. The lessons learned from each event and the changes and additions made to the supplies and equipment will help the department respond quicker and more efficiently.

**64. Maintain, Repair and Upgrade Department Equipment:** Preventive maintenance and repairs were made on the following equipment: 7 foam pumps, 9 generators, 2 high pressure decon washers and trailers, 1 road tractor, 1 mobile command center, 2 heavy duty pick-up trucks, 1 sports utility vehicle, 1 cargo van, 1 water transfer unit including pump and associated equipment, 11 box and utility trailers and 64 PAPR battery packs (cycle and recharge). Based on age and use much of the equipment required moderate maintenance and service, including battery replacement, charger upgrade, tire repair or replacement, oil changes, and hardware additions.

**65. Response Supplies and Equipment:** EP assured procurement, storage, inventory and maintenance of critical response supplies and personal protective equipment. The EP Division coordinates with other divisions and departments to identify and quantify material and equipment needs. EP has developed contingency logistics plans for potential escalated material and supply needs; identified potential funding sources; worked with purchasing and contracts to purchase materials and equipment from appropriate vendors; obtained donated materials; received materials and equipment and packaged them for appropriate storage or staging; placed material and equipment in appropriate response trailers, storage rooms, or warehouses throughout the state; provided specific materials and equipment upon request of departmental employees; and regularly inventories, maintains and evaluates current materials and equipment. Response activities have consumed some equipment and supplies that are still in the process of being restocked through the purchasing system. Shelf life will be an issue in the next few years that will have to be addressed in finding funds for significant inventory replacement.

**66. Voice Interoperability Plan for Emergency Responders Radio System:** EP has moved forward in the enhancement of the VIPER 800 MHz Radio System for NCDA&CS at large. Currently the department has 83 operational units with 53 deployed across five divisions and an additional 29 units that can be deployed as needed. Many of these units have been distributed to department personnel in support of the catastrophic events of the past year. EP, in collaboration with Plant Industry Division, has implemented changes in the radio programming of the new NCDA&CS zone in addition to the zone of 16 talk groups shared with Public Health. Using training from Motorola and recently purchased programming equipment and licensing, work is continuing on preparing a complete programming template for the department's 800MHz system in accordance with the Radio Communication Plan.

**67. Interdivisional Support:** EP staff supported other agencies and divisions by supplying equipment and providing procurement support for the AI response training events within the department and with industry. EP provided: electrical specifications for a USDA mobile command center; design, procurement and construction support for equipment storage structure, power and communications systems; outfitted Plant Industry laboratory; procured, built and populated pallet storage racks at Support Services facility to accommodate repairs to the barn and to increase usable storage space; contracted repairs and modifications to the response resource warehouse in Butner, conducted risk assessment for 2011 State Fair; provided legal testimony and depositions in two cases for the defense of NCDA&CS; provided personnel, supplies, and equipment to the NC Forest Service in their response to three fires in eastern NC (Simmons Road, Lateral West and God Morning II) and continued work in the promotion of disposal and decontamination technology in conjunction with the USDA, EPA and DHS.

**68. Incident Material and Technical Support:** EP staff provided technical assistance and/or material for the following incidents: poultry industry responses in four events, three forest

fires, tornadoes in NC, tornadoes in Alabama, industry responses in adjoining states and miscellaneous training events and exercises.

**69. Donations Coordination:** EP coordinated the receipt of equipment and supply donations from several government and industry sources. The donations included: medical supplies, laboratory equipment and furniture and materials from the Strategic National Stockpile. Donated supplies and equipment were placed with NCDA&CS Divisions or other state agencies, institutions or local governments.

## Glossary of Acronyms

**AERT:** Agricultural Emergency Response Team  
**AgEOC:** Agriculture Emergency Operations Center  
**AgTAP:** Agricultural Tornado Assistance Program  
**AHIMT:** All Hazards Incident Management Team  
**AHP:** Animal Health Programs  
**AI:** Avian Influenza  
**AVMA:** American Veterinary Medical Association  
**CAMET:** Companion Animal Mobile Equipment Trailer  
**CART:** Companion Animal Response Team  
**CBRNE:** Chemical, Biological, Radiological, Nuclear and Explosive Task Force  
**CIKR:** Critical Infrastructure and Key Resources  
**CRI:** City Readiness Initiative  
**DHS:** Department of Homeland Security  
**DL:** Daily Log  
**DOQQ:** Digital Ortho-rectified Quarter Quad  
**DPR:** Domestic Preparedness Region  
**EC:** Enterprise Client  
**EDT:** Eastern Daylight Time  
**EMAC:** Emergency Management Assistance Compact  
**EOC:** Emergency Operations Center  
**EOP:** Emergency Operation Plan  
**EP:** Emergency Programs  
**EPA:** Environmental Protection Agency  
**ESF:** Emergency Support Function  
**F&D:** Food and Drug Division  
**FAD:** Foreign Animal Disease  
**FADD:** Foreign Animal Disease Diagnosticians  
**FASCAT:** Food and Agriculture Sector Criticality Assessment Tool  
**FDA:** US Food and Drug Administration  
**FDPD:** Food and Drug Protection Division  
**FDTF:** NC Food Safety and Defense Task Force  
**FEMA:** Federal Emergency Management Agency

**FSA:** Farm Service Agency  
**GAO:** Government Accountability Office  
**GCC:** Government Coordination Council  
**GIS:** Geographic Information System  
**GPS:** Global Positioning System  
**HSPD:** Homeland Security Presidential Directives  
**Hurrevac:** Hurricane Evacuation Software Program  
**IAP:** Incident Action Plan  
**ICS:** Incident Command System  
**IFARM:** Integrated Food and Agriculture Resource Management  
**IIT WG:** Interactive Information Technology Workgroup  
**ISAAC:** Information Sharing and Analysis Center  
**ISS:** Information Support Services  
**KML:** Keyhole Markup Language  
**KMZ:** Keyhole Markup Language Zipped  
**MCTFR:** Military-Civilian Task Force for Emergency Response  
**MOA:** Memorandum of Agreement  
**MHTD:** Multi-Hazard Threat Database  
**MHz:** Megahertz  
**MPID:** Meat and Poultry Inspection Division  
**NASAAEP:** National Alliance of State Animal and Agricultural Emergency Programs  
**NBIC:** National Biosurveillance Integration Center  
**NC ARCA:** NC Animal Rabies Control Association  
**NCDA&CS:** North Carolina Department of Agriculture and Consumer Services  
**NC DENR:** North Carolina Department of Environment and Natural Resources  
**NC DHHS:** North Carolina Department of Health and Human Services  
**NC DOT:** NC Department of Transportation  
**NC DPH:** North Carolina Division of Public Health  
**NC EM:** North Carolina Division of Emergency Management  
**NC EOP:** North Carolina Emergency Operations Plan  
**NC FDEM:** North Carolina Food Defense Event Management  
**NCFS:** North Carolina Forest Services  
**NC OEMS:** North Carolina Office of Emergency Medical Services  
**NC PHP&R:** North Carolina Office of Public Health Preparedness and Response  
**NCSU CES:** NC State University Cooperative Extension Service  
**NCSU CVM:** North Carolina State University College of Veterinary Medicine  
**NCSU OPD:** North Carolina State University Office of Professional Development  
**NCVC:** North Carolina Veterinary Conference  
**NCVRC:** NC Veterinary Response Corps  
**NC WRC:** NC Wildlife Resource Commission  
**NEMA:** National Emergency Managers Association  
**NGO:** Non-governmental Organization

**NIMS:** National Incident Management System  
**NIMSCAST:** National Incident Management Compliance Assistance Support Tool  
**NRC:** Nuclear Regulatory Commission  
**NVS:** National Veterinary Stockpile  
**OEMS:** Office of Emergency Medical Services  
**PAPR:** Powered Air-Purifying Respirator  
**PPF:** Partnership for Food Protection  
**PH:** Public Health  
**PHRST:** Public Health Regional Surveillance Team  
**PPE:** Personal protective equipment  
**PRRS:** Porcine Reproductive and Respiratory Syndrome  
**RRT:** Regional Response Team  
**SAADRA:** Southern Agriculture and Animal Disaster Response Alliance  
**SART:** State Agricultural Response Team  
**SASDA:** Southern Association of States Departments of Agriculture  
**SERC:** State Emergency Response Commission  
**SERT:** State Emergency Response Team  
**servNC:** Statewide Volunteer Database Management System  
**SHSS:** State Homeland Security Strategy  
**UNC:** University of North Carolina  
**USDA:** United States Department of Agriculture  
**USGS:** United States Geologic Survey  
**VIPER:** Voice Interoperability Plan for Emergency Responders  
**VN:** Virtual Network  
**WebEOC:** Web Based Emergency Operations Center  
**WMS:** Web Map Service