



Overview: 100-Year Floodplain Swine Buyout

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Program Origin

- Established in December 1999
- In the wake of devastation from Hurricanes Dennis, Floyd, and Irene
- Dozens of swine operations were flooded



Program Objective

Hazard Mitigation

- ▶ Reduce risk to water quality from future flood events
- ▶ Reduce financial risk to swine operators from future flood events
- ▶ Establish forested riparian buffers in areas with appropriate hydrology

Funding

- ▶ Four CWMTF grants totaling \$18.7 million (1999, 2001, 2004, 2007)
- ▶ Includes funds to:
 - ▶ Purchase swine production and development rights
 - ▶ Close lagoons and houses
 - ▶ Install conservation practices
 - ▶ Pay acquisition expenses (e.g., surveying, title search, appraisal)
 - ▶ Provide technical assistance from local Soil and Water Conservation Districts
- ▶ USDA-NRCS has contributed \$941,000 to help decommission lagoons on participating properties

Application/Selection Process

- ▶ Held a series of information sessions for interested individuals
- ▶ Solicit bids from swine producers believed to potentially be located in the 100-year floodplain
- ▶ Bids represent the amount the producer is willing to accept to relinquish swine production within the 100-year floodplain and to allow a conservation easement on the property
- ▶ Select bids that maximize water quality bang for the buck

Selection Criteria

- ▶ Consider
 - ▶ Bid price (\$/lb of permitted live weight)
 - ▶ Structural condition of the facility's waste treatment lagoons relative to current standards
 - ▶ Elevation of the top of the lagoon dike and production houses relative to the 100-year flood elevation for the site
 - ▶ Facility's history of flooding
 - ▶ Proximity to a water body that is classified as either water supply or high-quality waters
 - ▶ Willingness to install 100-foot forested buffer

Conservation Easement

- ▶ Prohibit operation of a feedlot and use of easement area as spray field
- ▶ Prohibit non-agricultural development
- ▶ Require implementation of conservation plan
- ▶ Restrict location of storage and mixing areas for agrichemicals
- ▶ Require minimum 50-foot forested buffers on all streams in easement area (35-foot vegetative buffers on ditches)
- ▶ Land can continue to be used for row crops, pasture, or forestry

Program Statistics

- ▶ 138 producers have submitted an application (over \$100 million requested)
- ▶ 43 operations selected in 15 counties
 - ▶ Capacity to produce over 60,000 hogs in the floodplain
 - ▶ 106 waste lagoons
- ▶ 42 easements acquired to date – 1,218 acres
- ▶ 103 lagoons closed, expect to close remaining 3 lagoons in 2017.
- ▶ Average for Phase 1 \$0.85/lb SSLW; Phase 4: \$1.68/lb.



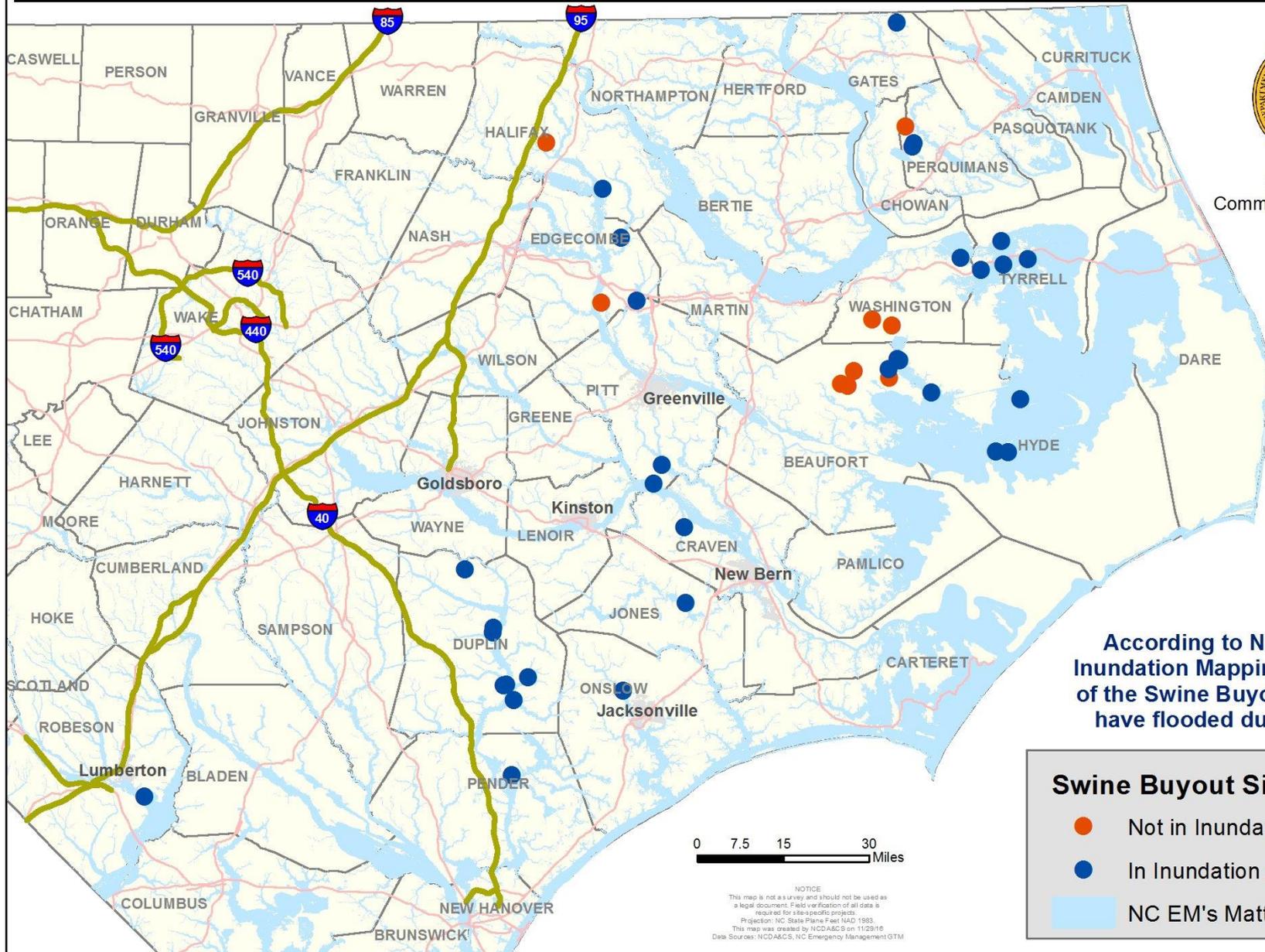




Swine Farm Buyout Sites and Flood Inundation from Hurricane Matthew



Steve Troxler
Commissioner NCDA&CS



According to NCEM's early Inundation Mapping it is likely 32 of the Swine Buyout Sites would have flooded during Matthew

Swine Buyout Sites

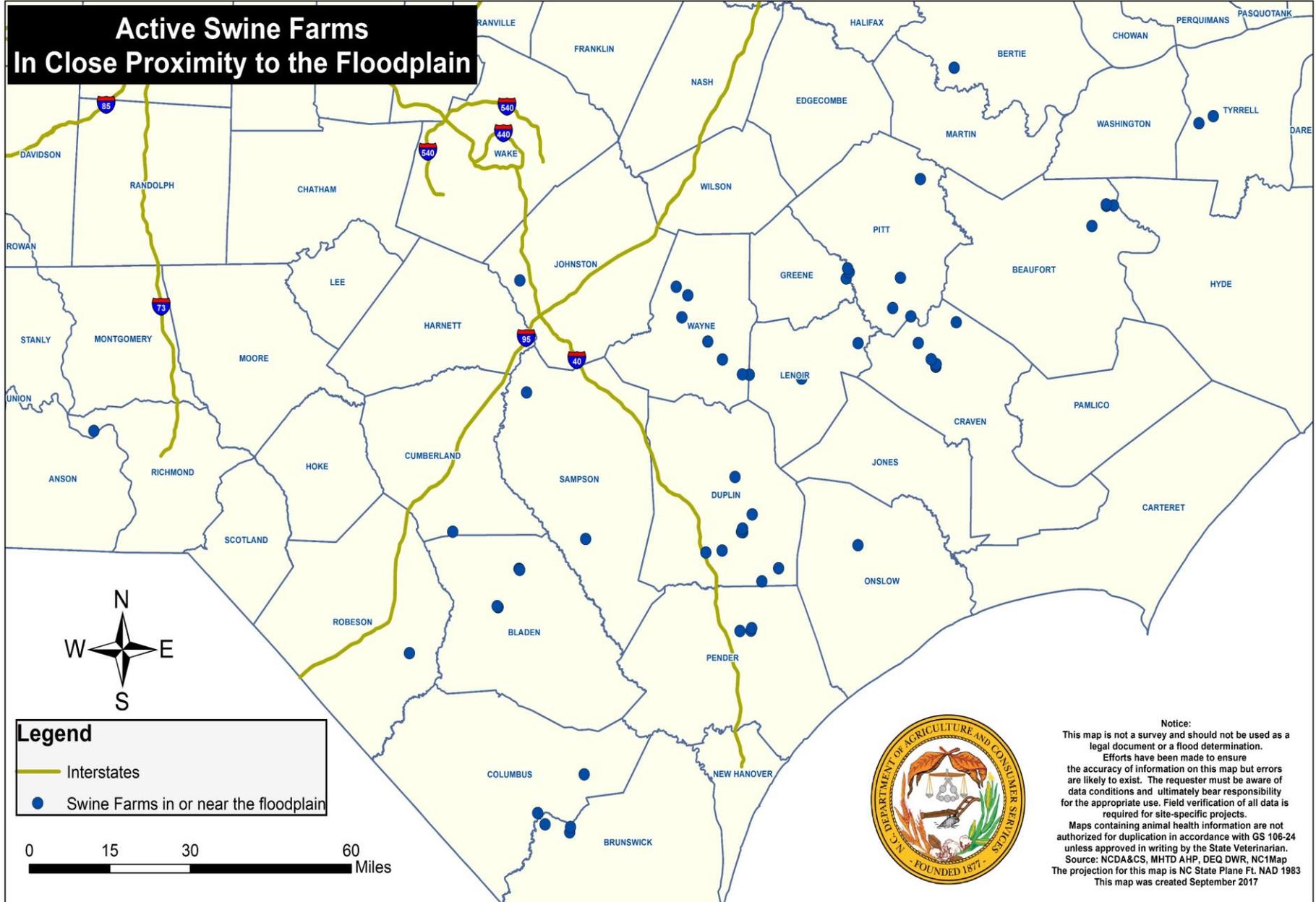
- Not in Inundation Area
- In Inundation Area

NC EM's Matthew Inundation

0 7.5 15 30 Miles

NOTICE
This map is not a survey and should not be used as a legal document. Field verification of all data is required for site-specific projects.
Projection: NC State Plane Feet NAD 1983
This map was created by NCDA&CS on 11/29/16
Data Sources: NCDA&CS, NC Emergency Management GTM

Active Swine Farms In Close Proximity to the Floodplain



Legend

-  Interstates
-  Swine Farms in or near the floodplain



Notice:
 This map is not a survey and should not be used as a legal document or a flood determination. Efforts have been made to ensure the accuracy of information on this map but errors are likely to exist. The requester must be aware of data conditions and ultimately bear responsibility for the appropriate use. Field verification of all data is required for site-specific projects.
 Maps containing animal health information are not authorized for duplication in accordance with GS 106-24 unless approved in writing by the State Veterinarian.
 Source: NCDA&CS, MHTD AHP, DEQ DWR, NC1Map
 The projection for this map is NC State Plane Ft. NAD 1983
 This map was created September 2017

Swine Farm Siting Requirements

- ▶ **§ 106-803. Siting requirements for swine houses, lagoons, and land areas onto which waste is applied at swine farms.**
- ▶ (a2) No component of a liquid animal waste management system for which a permit is required under Part 1 or 1A of Article 21 of Chapter 143 of the General Statutes, other than a land application site, shall be constructed on land that is located within the 100-year floodplain.
- ▶ This siting restriction helps to make the swine floodplain buyout program a sound approach for mitigating future flood impacts through public dollars.

Summary



- Extremely popular voluntary program
- Win-win for farmer and water quality
 - Reduced anxiety about flooding concerns
 - Maintains floodplains for agricultural and forestry land uses