



Overview: 100-Year Floodplain Swine Buyout

DAVID WILLIAMS, DEPUTY DIRECTOR
DIVISION OF SOIL AND WATER CONSERVATION
DECEMBER 1, 2016

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

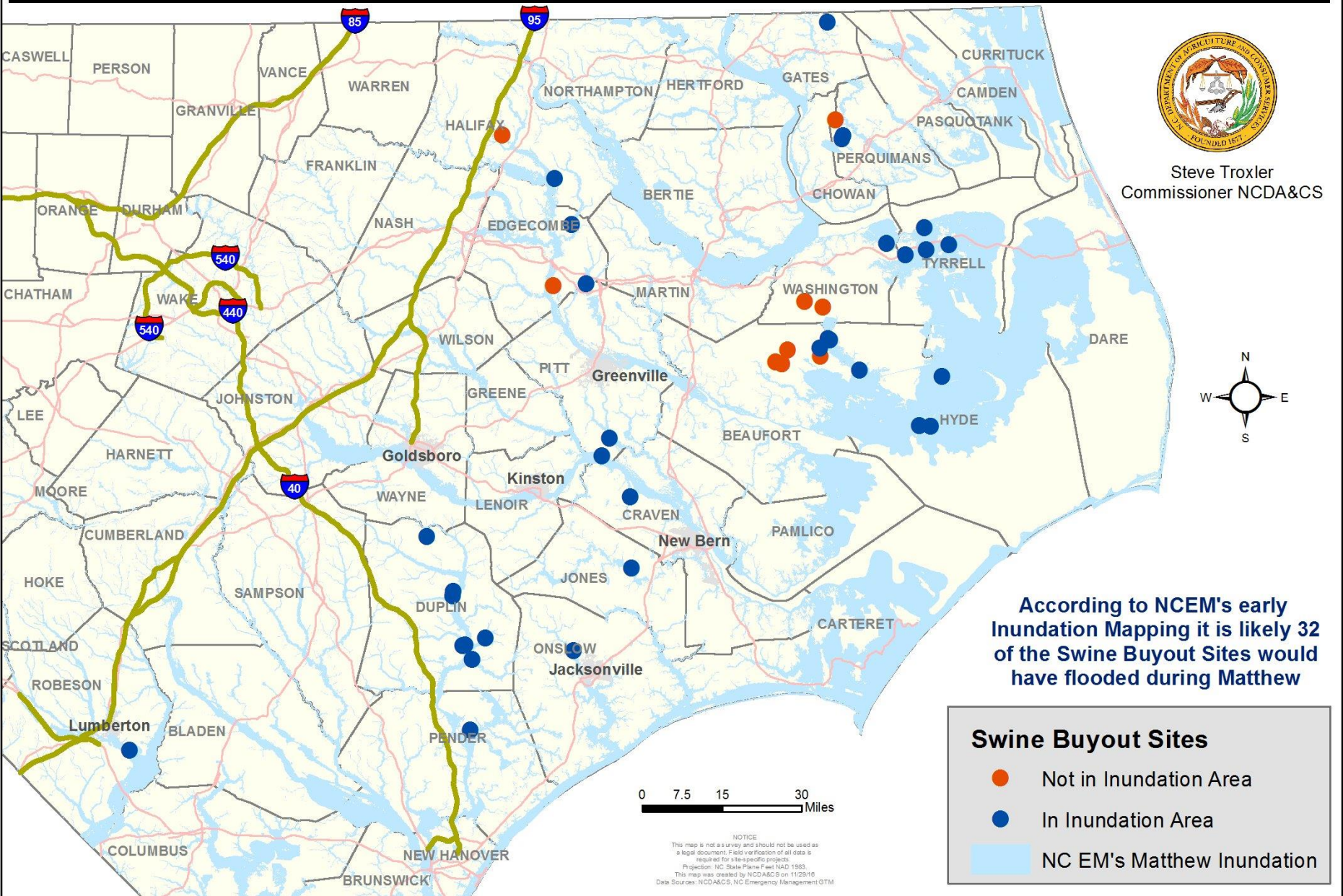
- ▶ 138 producers have submitted an application (over \$100 million requested)
- ▶ 43 operations selected in 15 counties
 - ▶ Capacity to produce over 60,000 hogs in the floodplain
 - ▶ 106 waste lagoons
- ▶ 42 easements acquired to date – 1,218 acres
- ▶ 103 lagoons closed, expect to close remaining 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



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