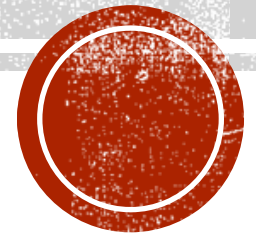
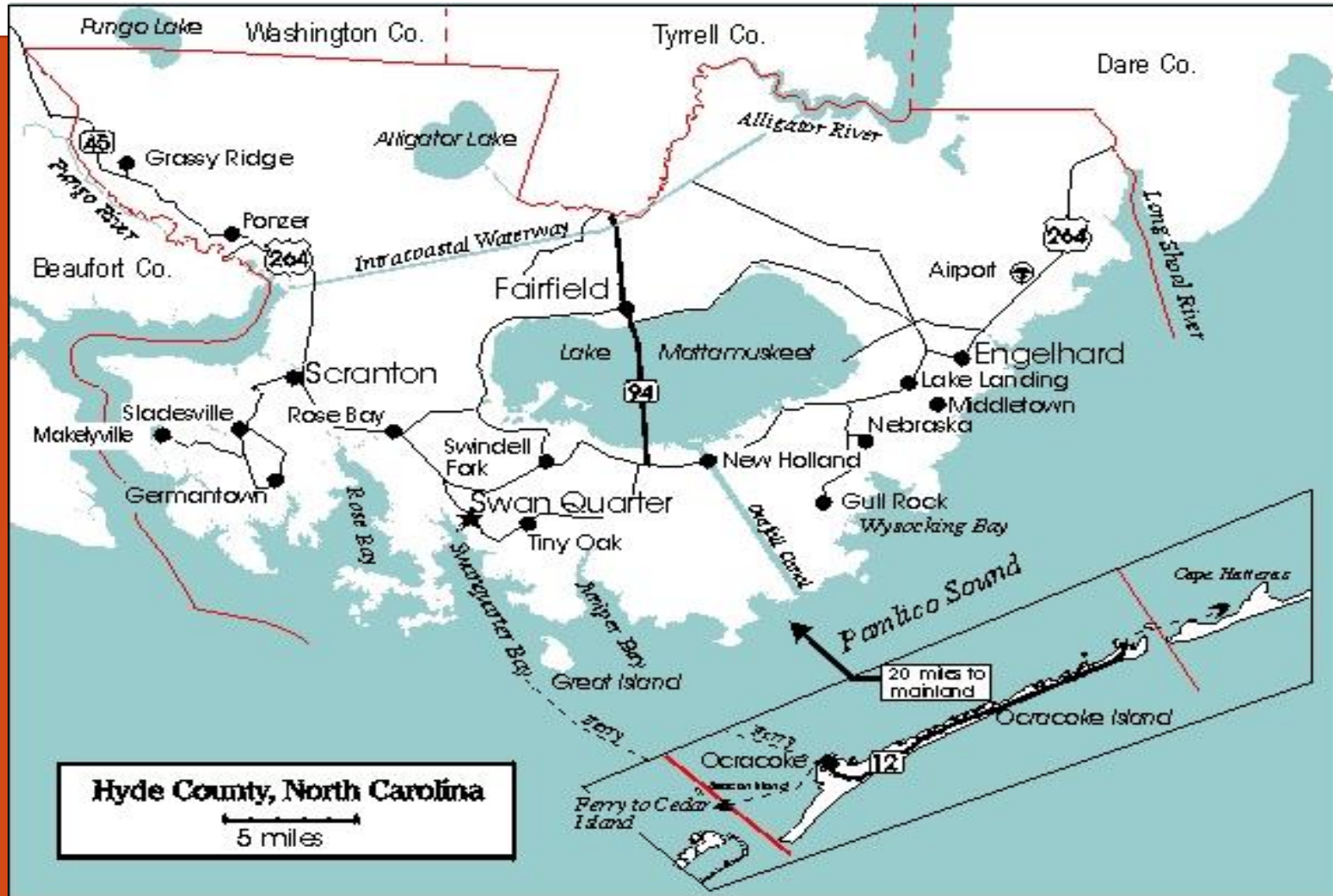


# HYDE DRAINAGE MANAGEMENT ISSUES





## HYDE COUNTY:

**Landmass- 392,000 Acres  
(2<sup>nd</sup> Largest)**

**Population- 5810 (2<sup>nd</sup> least)**

**Industry- Agriculture,  
Tourism, Commercial  
Fishing, Recreation (2<sup>nd</sup>  
poorest county in NC)**

**Four National Wildlife  
Refuges, Multiple State  
Game lands, Numerous  
Private Wildlife  
Sanctuaries.**







99  
Belhaven

Fairfield

Engelhard

45

94

264

Swanquarter

Hyde

Pamlico Sound

© 2016 Google  
Image Landsat

Image © 2016 DigitalGlobe

Google earth

Imagery Date: 4/26/2014 35°29'55.97" N 76°12'47.59" W elev 1 ft eye alt 44.85 mi





# **HYDE COUNTY AGRICULTURE**

**83,000 Acres of Cropland**

**Hyde County is part of the “Blacklands” a four county area that is known for its rich organic and highly productive soil.**

**Crops- Corn(3<sup>rd</sup>), Wheat(10<sup>th</sup>), Soybeans, Cotton(12<sup>th</sup>)**

**Specialty Crops(11<sup>th</sup>)- Snap Beans, Cucumbers, Squash, Zucchini, Onions, Potatoes, Sweet Potatoes, Canola**

**Several Fresh Market Vegetable Graders**

**Rose Acre Egg Farm- The largest egg farm in North Carolina**







## **UNIQUE AGRICULTURAL CHALLENGES**

**Elevation- Roughly 85% of Hyde County is within the 100year floodplain.**

**Highest elevation is 27ft**

**Precipitation- Hyde County averages 49" or precipitation annually**

**2015 Precipitation 78"**

**Hurricanes, Nor'easters, Coastal Lows and Thunderstorms**

**Lunar and Wind driven tides inundate low lying land**

**Salt Water Intrusion can yield land barren for years and is hard to mitigate.**

**Overflow from upstream Lakes, Pocosins and Impoundments put additional pressure on drainage infrastructure.**







HYDE

USDA FSA NAIP

NC 911 Board, NC © 2010

35°30'49.27" N 76°13'35.50" W elev 0 ft

Eye alt 48.81 mi





# **AGRICULTURAL ADAPTATION**

## **THE IMPORTANCE OF DRAINAGE**

**“We live and die by drainage”**

**Ditches and Canals are so vital that most are named.**

**There are drainage entities of varying size and scope,**

**Drainage Districts, Service Districts, Private incorporated and non-incorporated drainage associations, Landowner-Producer partnerships, and Private Projects.**

**Drainage projects benefit homes and businesses as well.**

**Vital drainage infrastructure includes,**

**Canals, Dikes (earthen and Sheet wall), Culverts, Risers, Viable Outlets, Pumps, and *Tide Gates.***







# **RECENT COASTAL LOW AND NOR' EASTER (FOLLOWING HURRICANE JUAQUIN)**

**Despite the existing drainage infrastructure the prolonged tides and rainfall were detrimental to agricultural production.**

**From Sept. 22nd to Oct. 9<sup>th</sup> Swan Quarter receive 13 inches of rain**

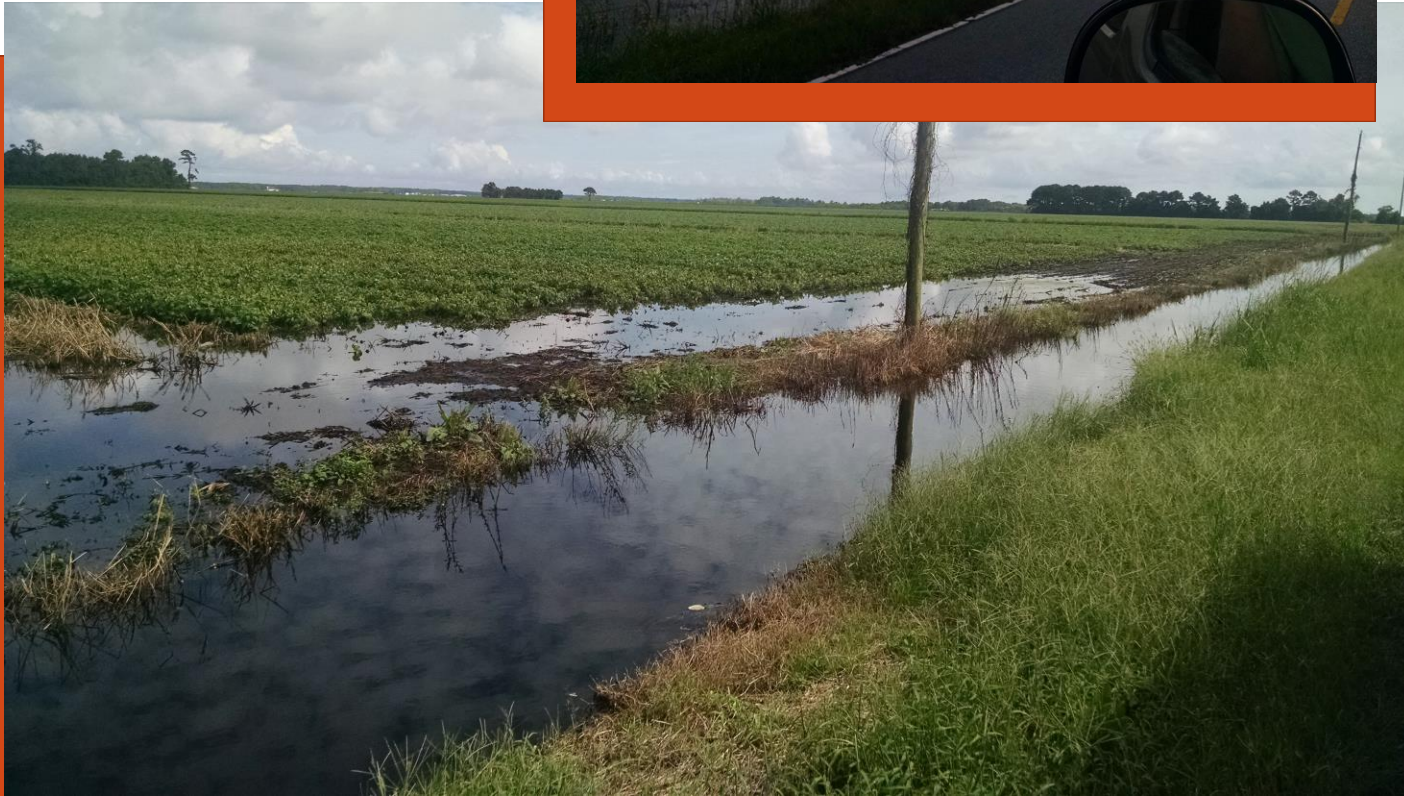
**Tides ruled high for nearly two weeks cresting around 3ft in Swan Quarter.**

**Fields, Yards, and Streets were inundated for days.**

**Drainage entities throughout the county were unable to prevent inundation from rainfall and tide water.**







## **CROP DAMAGE FROM THE RECENT COASTAL LOW AND NOR' EASTER (FOLLOWING HURRICANE JUAQUIN)**

**Full Season Soybeans- 16,000  
Acres 50-100% loss**

**Double Crop Soybeans- 12,000  
Acres 25-50% loss**

**Cotton- 10,460 acres- 40% loss,  
diminished quality**

**Snap Beans- 2000 acres 95% loss**

**Source: *Hyde Cooperative  
Extension***







## **HURDLES TO IMPROVING EXISTING DRAINAGE**

**Complexities of design and installation**

**Economics of diking and pumping**

**Economies of Scale**

**Regulatory factors;**

**EPA, US Army Corps, USFWS**

**CAMA, NCDWQ, NCWRC, NCMF**





age District No. 8

Mattamuskeet Association

Fairfield Drainage District (No. 7)

Slocum Drainage Partnership

Swan Quarter Service District

West Quarter Service District

HYDE

USDA FSA NAIP

NC 911 Board, NC © 2010

Imagery Date: 8/31/2010

35°30'18.13" N 76°13'07.56" W elev 0 ft

Eye alt 47.75 mi





## **IN CONCLUSION**

**Drainage is among the most vital and complex issues facing Hyde County as well as other coastal counties.**

**The importance of facilitating productive meetings and discussions with stakeholders, governing entities and regulatory agencies cannot be overstated.**

