

Swan Quarter Watershed Structural and Land Treatment Project

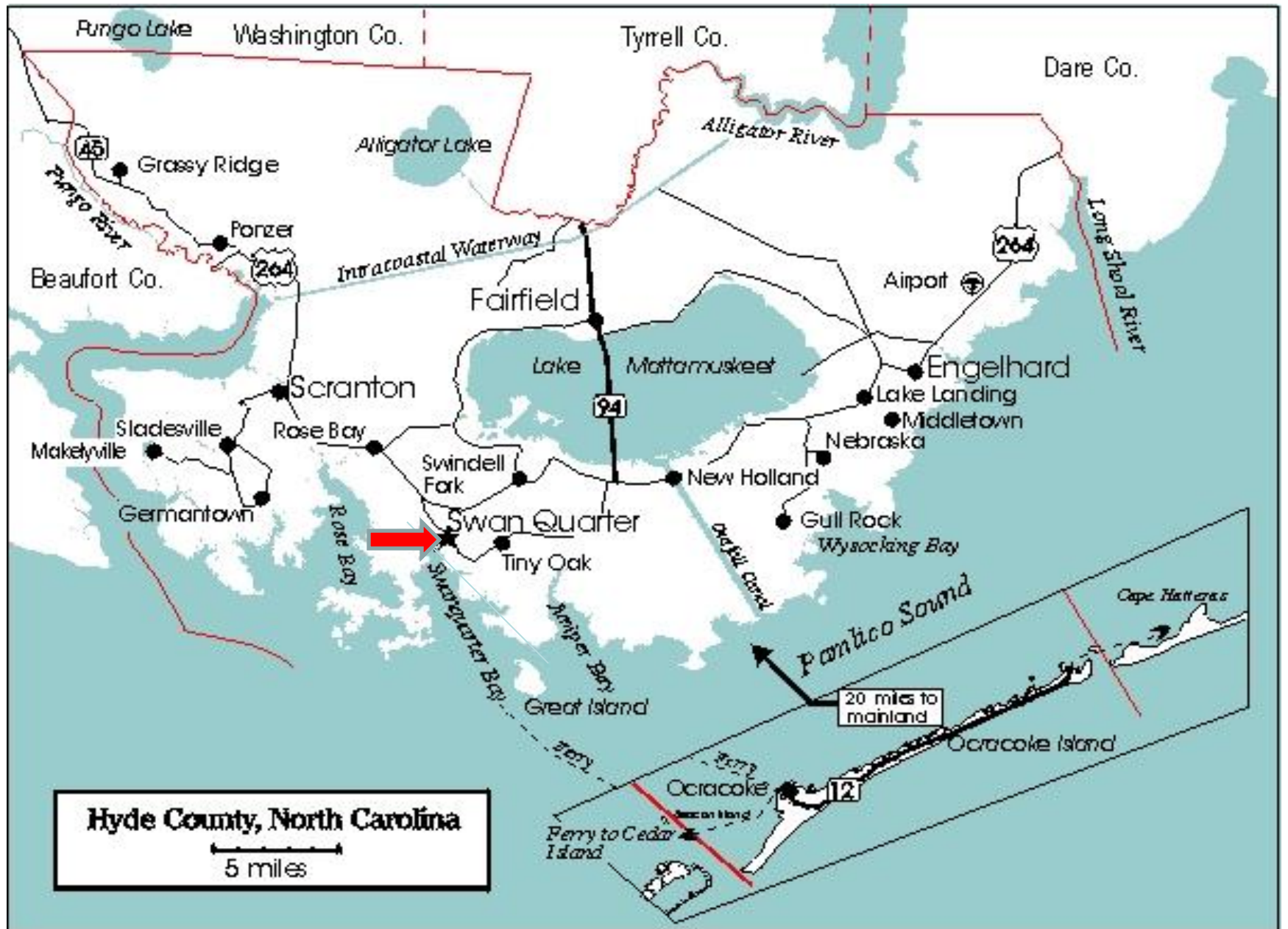
Presented To: Agriculture and Forestry Awareness Study Commission
North Carolina General Assembly

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USDA-NRCS



United States Department of Agriculture

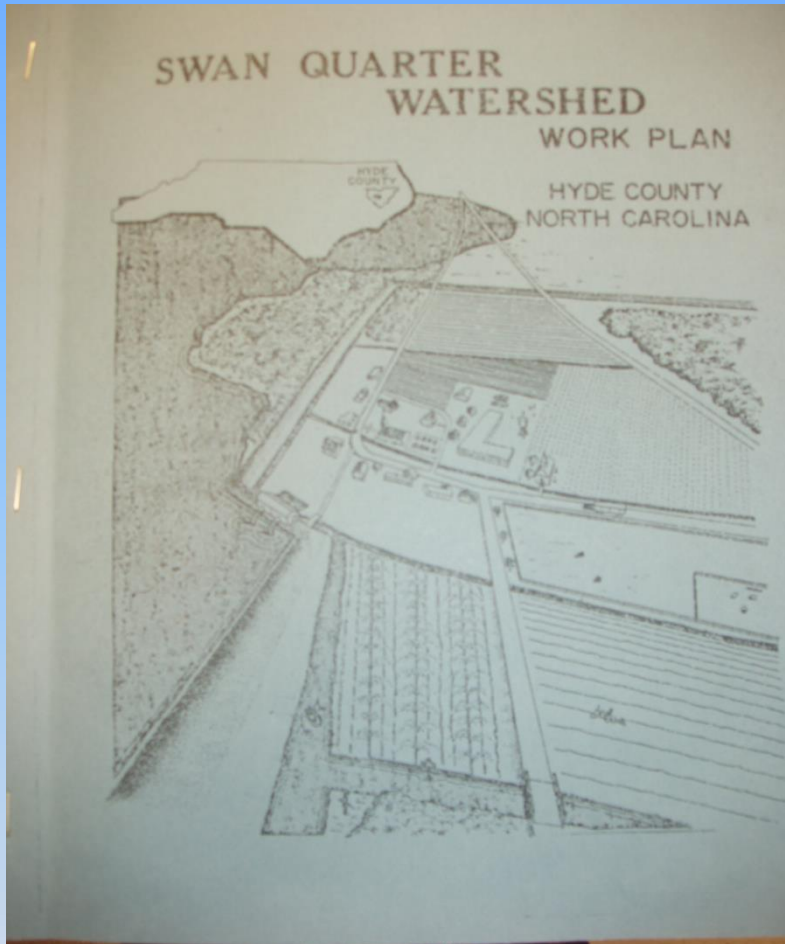


Hyde County, North Carolina
5 miles

History

- Following 5 hurricanes between 1954 to 1960 project was developed and approved by Congress under authority of the Watershed Protection and Flood Prevention Act (PL 566, 83rd Congress)
- Original Swan Quarter Work plan was signed on February 2, 1965 by the chairman and secretary of the Pamlico Soil and Water Conservation District (now Beaufort, Hyde, Washington, Tyrrell, and Dare Districts)

Original Work Plan

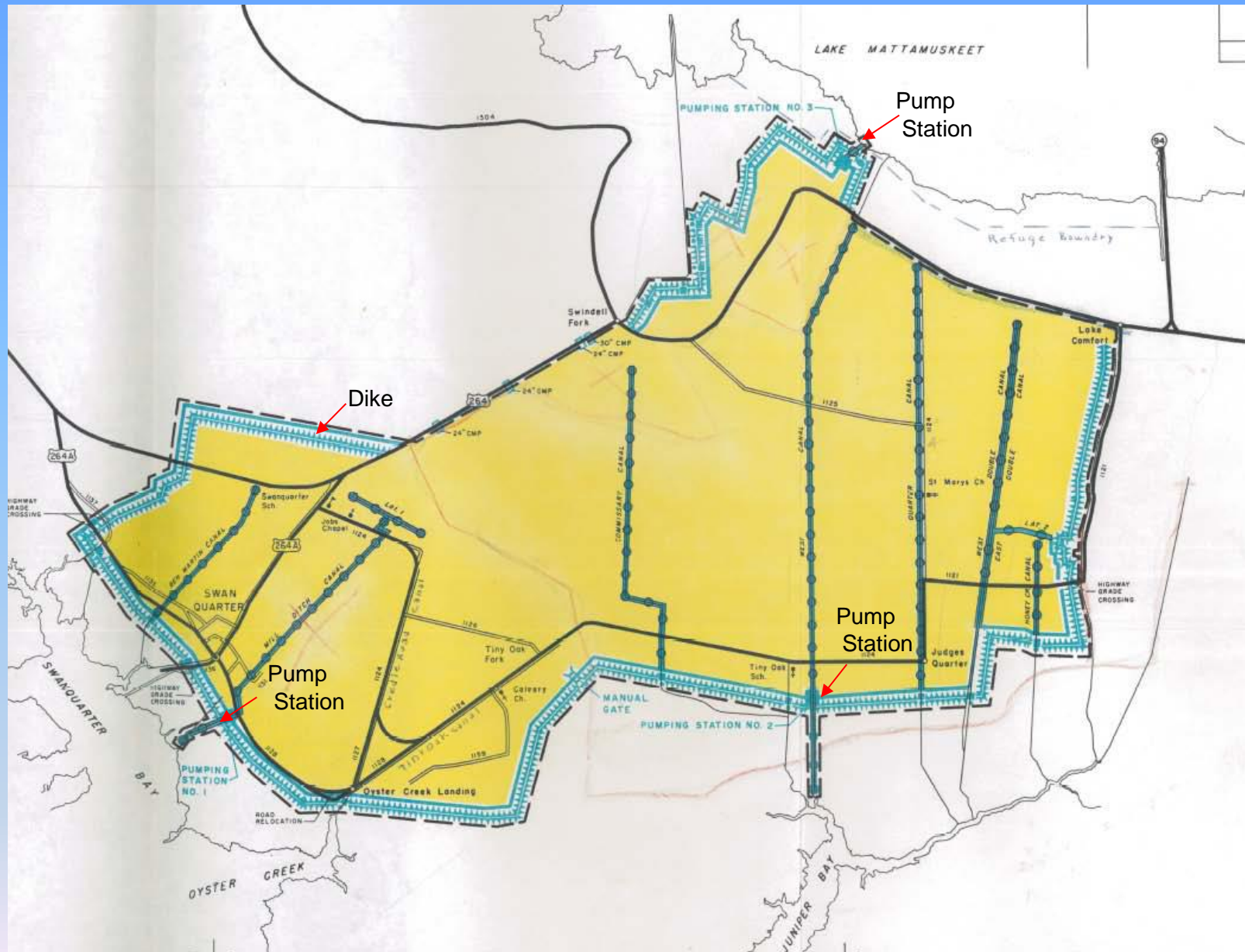


- 17.7 miles of earthen dike
- 3 pumping plants
- 16 tide gates structures
- 19.1 miles of channel improvements
- 11,440 acres (7,293 ac cropland)

Four Objectives:

- Improve outlets for on-farm and small group drainage ditches
- Elimination of flooding caused by high water and wind tides
- Reduction of flood damage from excess direct precipitation
- Acceleration of planning and installation of on-farm conservation land treatment measures

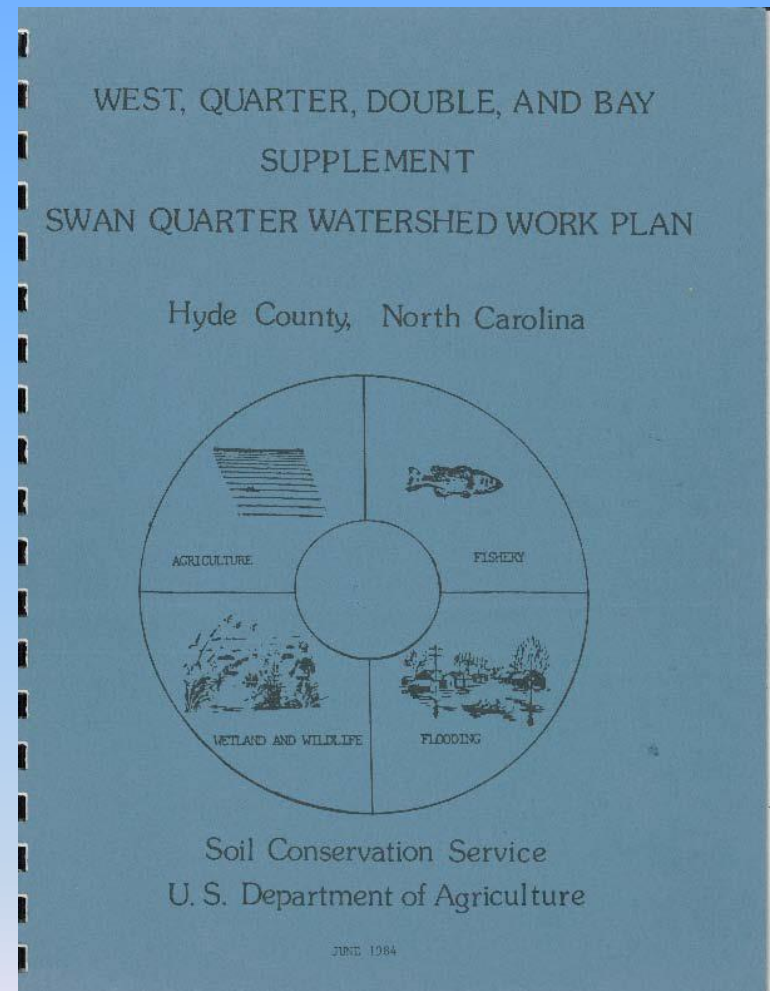
Original Project Map



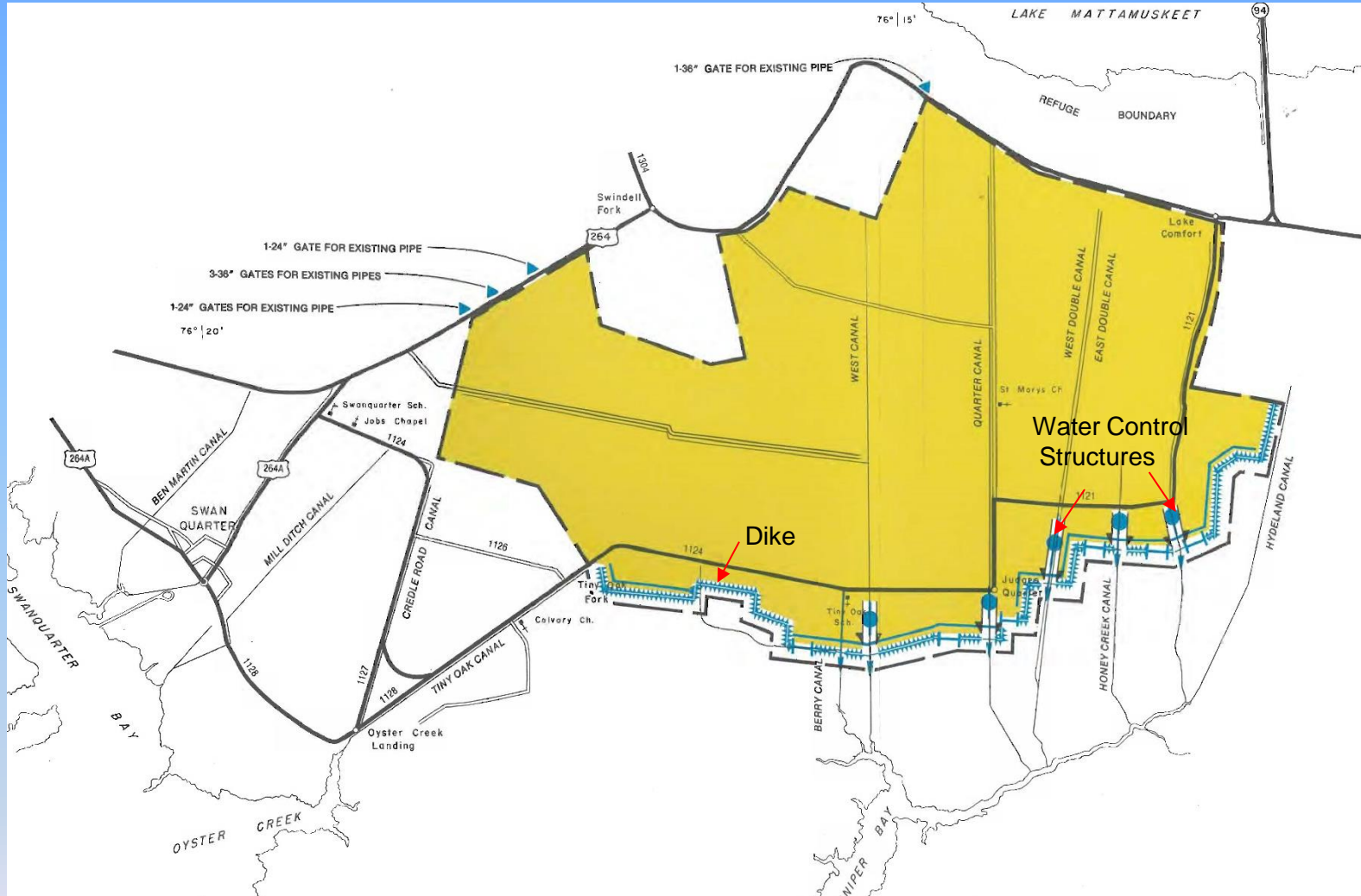
West, Quarter, Double, and Bay Supplement –June 1984

Deleted all objectives of the original work plan except for reduction of flood damages caused by high wind tides. Project Sponsors selected reduction of flood damages to the 25 year high wind tide elevation.

Added Hyde County Board of Commissioners as a project sponsor



Phases 1-7



West, Quarter, Double, and Bay Supplement

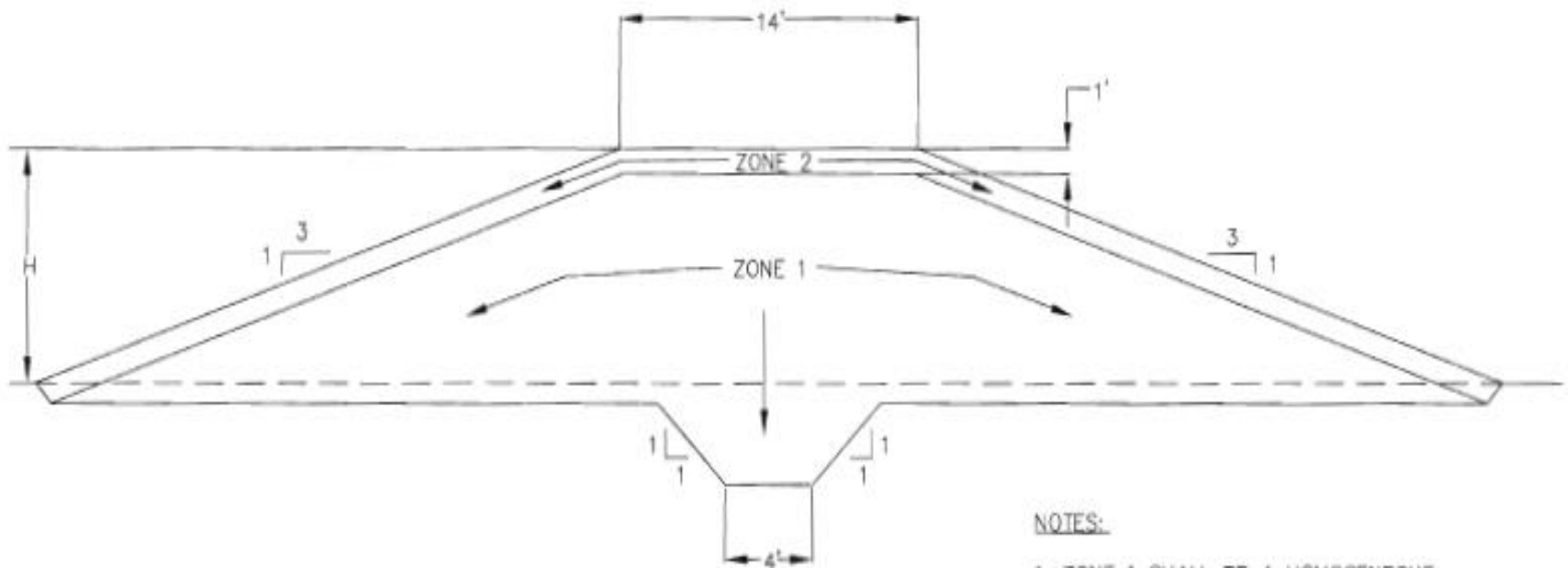
Corps of Engineers 404 Permit was issued in February 1986

Work began in 1987

Constructed in 7 phases

- 6.1 miles of dike
- No pumping plants
- 18 water control gates
- 2.9 miles of channel improvements
- 7040 acres (5150 ac cropland)

TYPICAL SECTION OF DIKE



NOTES:

1. ZONE 1 SHALL BE A HOMOGENEOUS FILL CONSTRUCTED OF MINERAL SOILS, ORGANIC SILT, AND CLAY SOILS.
2. ZONE 2 SHALL BE CONSTRUCTED OF ORGANIC SOILS AND/OR MINERAL SOILS. THE ORGANIC SOILS SHALL BE PLACED ON THE EXPOSED SURFACE.

MATERIAL PLACEMENT



Borrow
Canal

7. 7. 2004



Dike

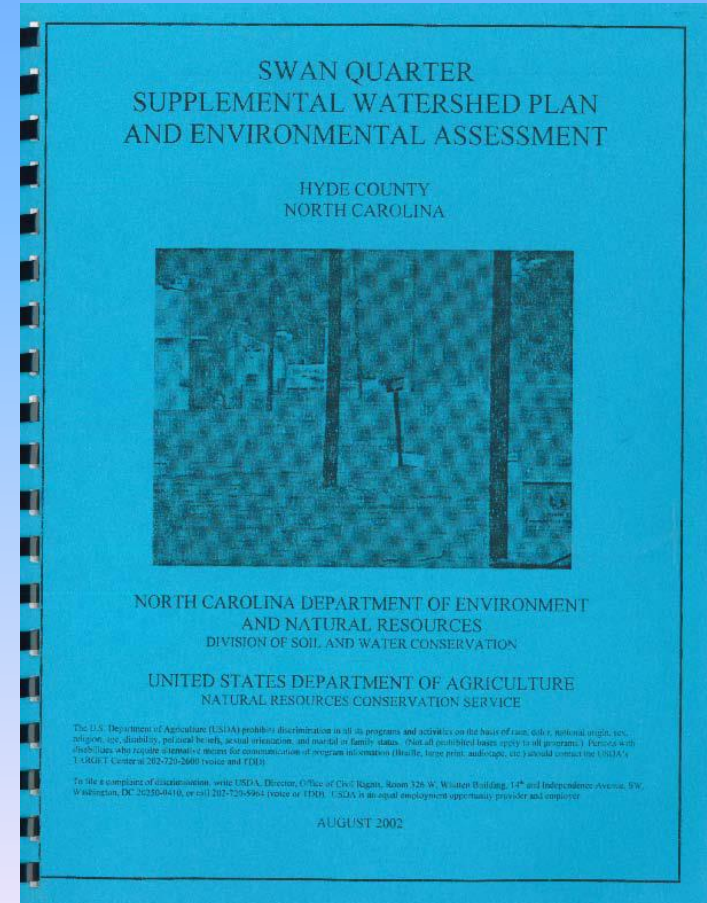
Concrete Water Control
Structures

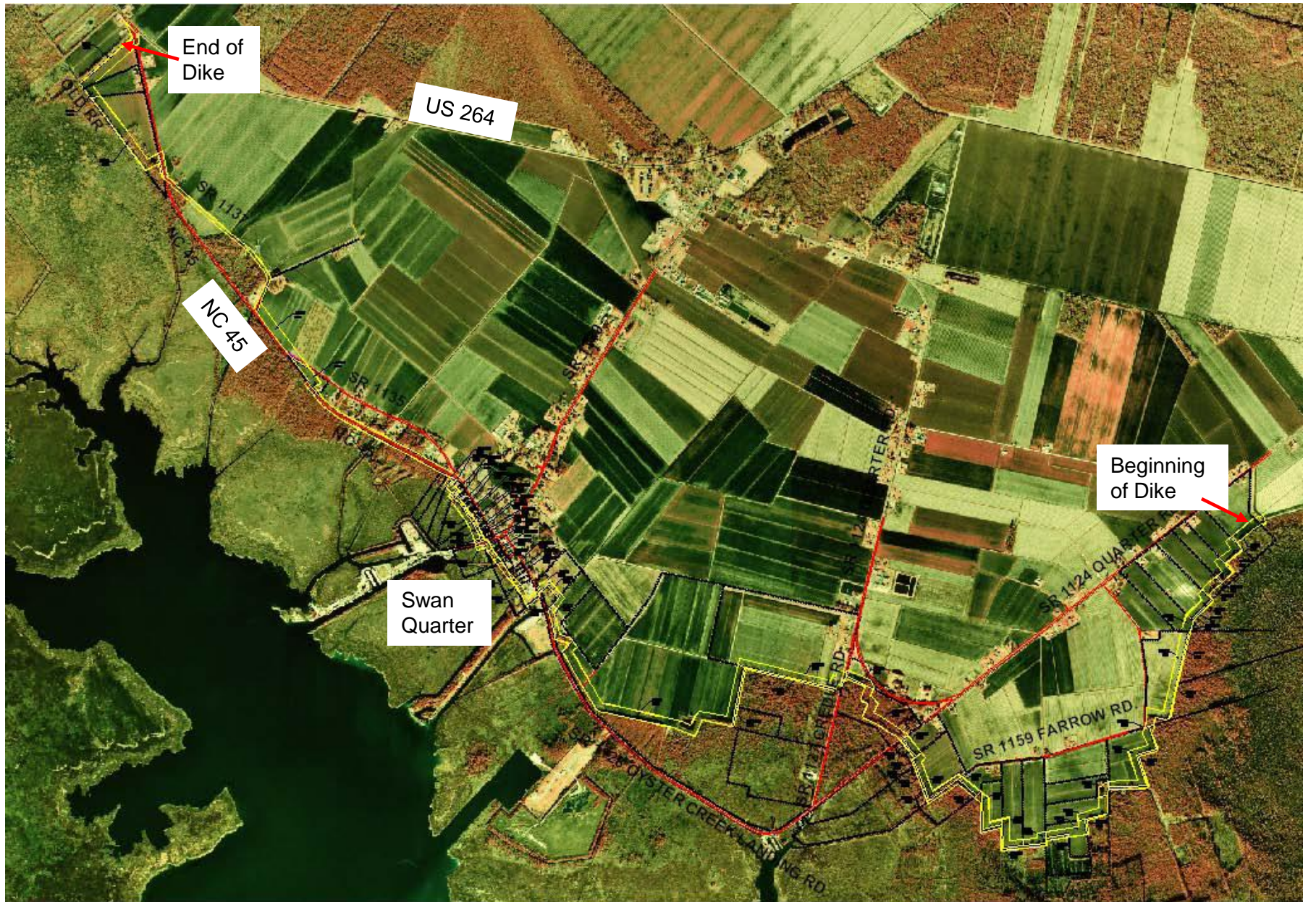
Work was completed on Phases
1-7 by 1995.



Supplemental Watershed Plan and Environmental Assessment –August 2002

- Following six hurricanes in the 1990's local sponsors requested project be extended west through the Town of Swan Quarter out to the junction of NC45 and US264
- CAMA permit issued December 2002
- Corps of Engineers permit issued January 2003





End of Dike

US 264

NC 45

Swan Quarter

Beginning of Dike

SR 1159 FARROW RD

SR 1124 QUARTER RD

SR 1135

SR 1131

OYSTER CREEK LANDING RD

SWAN QUARTER WATERSHED

Phases 8-13

- 6.5 miles of dike
- 5728 feet of floodwall
- 86 tide gate structures
- 8 road improvements
- 2 mitigation sites
- \$10,921,976.00

Phase 11



Phase 11 of the Swan Quarter Watershed Project began on October 23, 2006. This phase included installation of vinyl sheet piling beginning at Landing Road and running behind a residential area of town to NC Hwy 45.

Vinyl Sheet Piling Wall

Hollow Composite Post Piles



Aluminum Tide Gate Structures



Sadie Weston Road Improvement
– raised to match the dike design height

06.23.2010



Swan Quarter Project was completed in June 2011 after 46 years of planning and construction.

Completed works:

- 12.6 miles of dike
- 5728 feet of floodwall
- >100 tide gate structures
- 19 water control gates
- 8 road improvements
- 2 mitigation sites
- 11,000 acres (7000 acres of cropland)

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United States Department of Agriculture