

WELCOME

A Case Study of North Fork Wetlands Bank



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Wetland Studies and Solutions, Inc.

www.wetlandstudies.com

WETLAND STUDIES AND SOLUTIONS, INC.

- Focus on Northern VA, with Projects From Maryland to the everglades, hired by Disney in 1993.
- 35 Person Consulting Firm:
 - Engineers, scientists and GIS/ Surveyors
 - Delineation, permitting, mitigation, stream restoration, stormwater and floodplain studies
 - Over 64,000 acres of sites (1,075+) studied in Northern Virginia alone
 - 88 mitigation sites
 - 3 mitigation banks

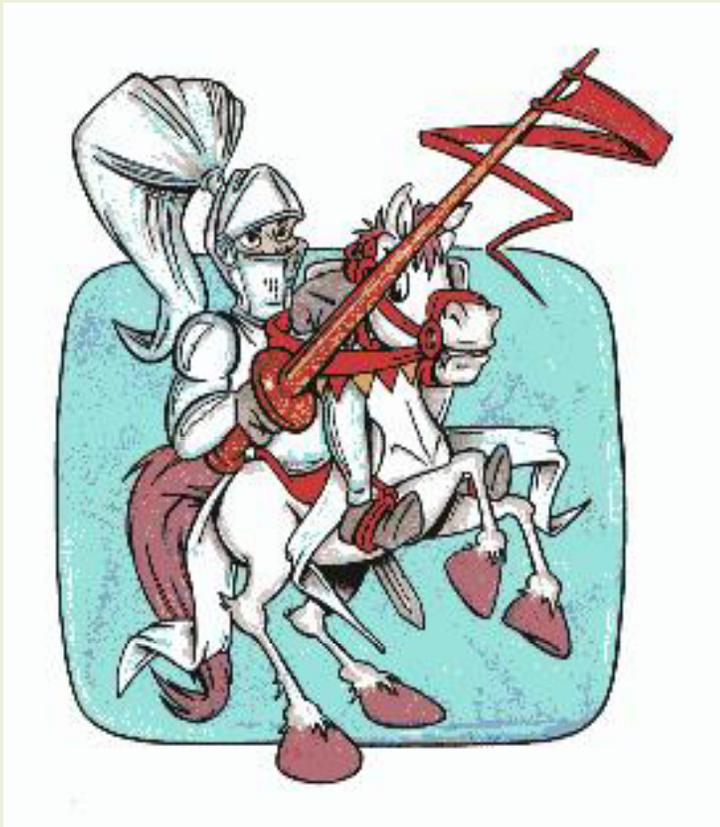


1993: DISNEY AMERICA PROPOSED



- **Project Location**
- **Existing Conditions**
- **Expected Wetland Impacts**
 - Disney site: 9.8 acres
 - I-66 widening: 10-15 acres

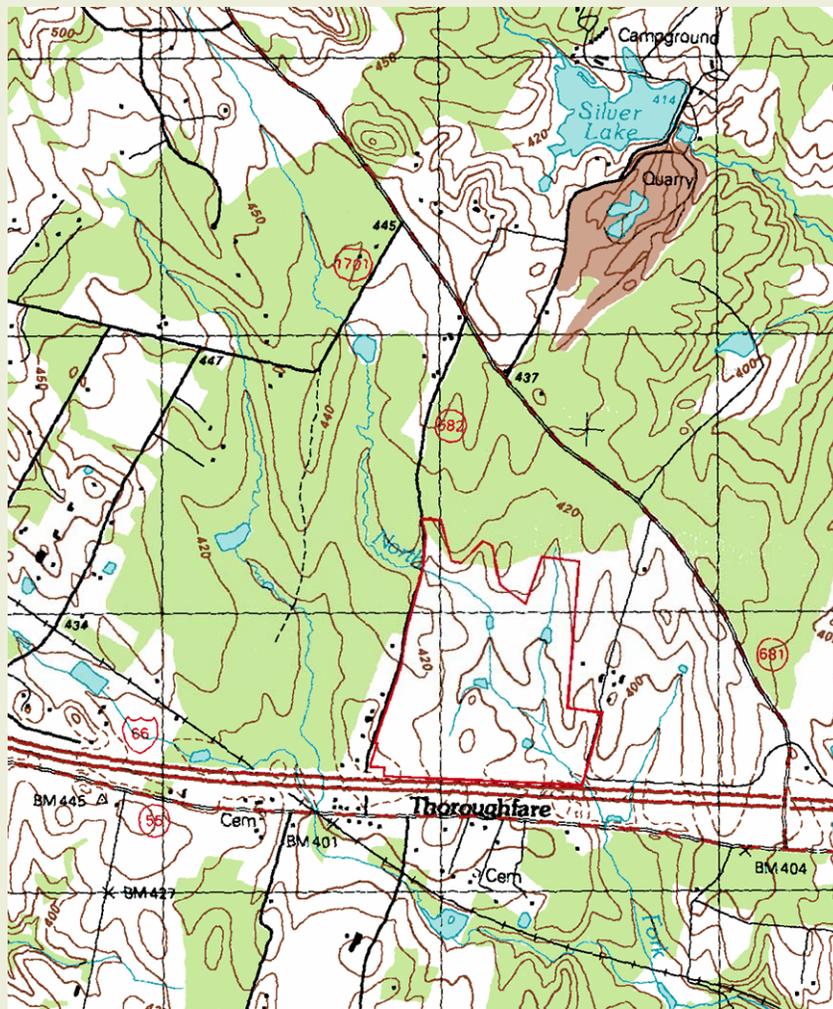
1994: “WHITE KNIGHT” SOLUTION



“White Knight” Solution

- Create wetland bank
- If zoning denied, donate wetland bank to County or VDOT

1994: LAWSUITS FILED

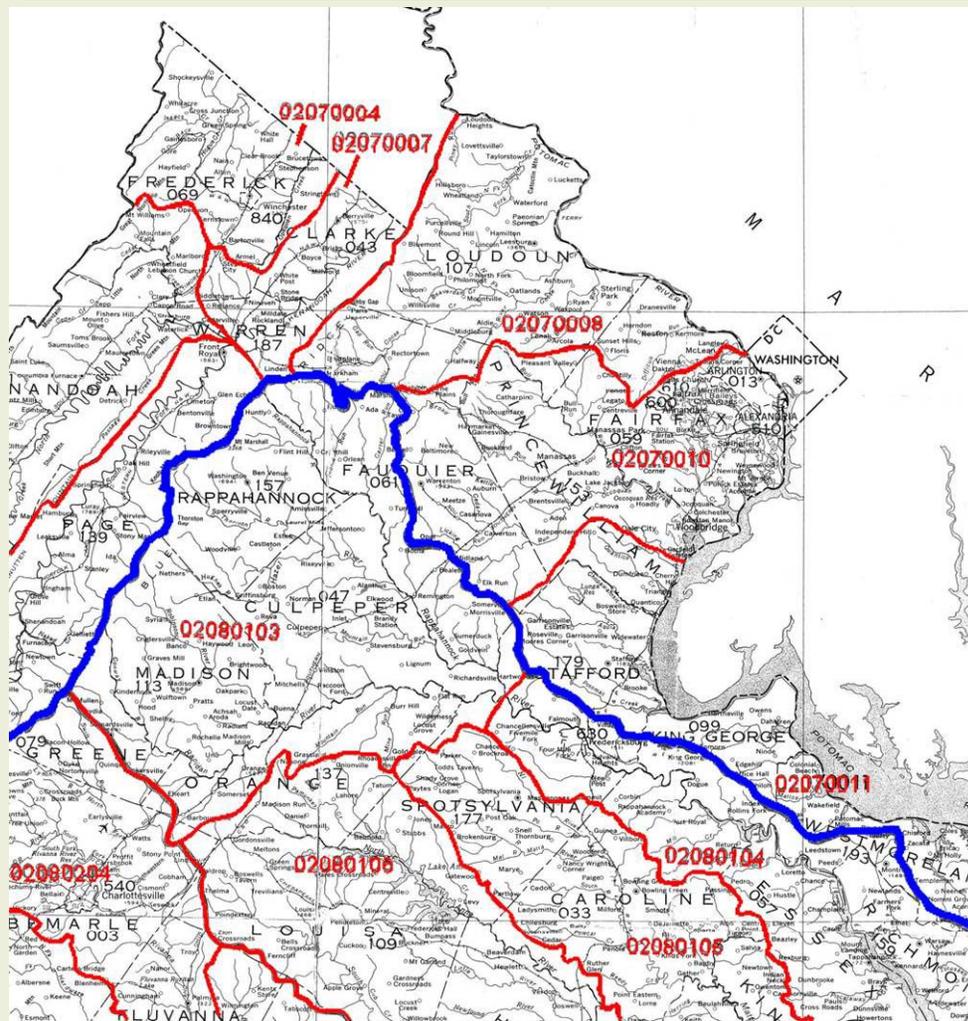


- Stream Characterization
Perennial vs. Intermittent
- Approval of Bank is a
Pre-judgmental decision
- Lawsuits Dismissed

SEPTEMBER 1994: DISNEY PULLS OUT



1995-1997 WSSI TRIES TO ACQUIRE THE LAND



- 1996 Service Area Law

— HYDROLOGIC UNIT CODE (HUC)
— RIVERSHED BOUNDARY

1997: GENTLEMAN'S AGREEMENT REACHED

- Disney sells the mitigation site to the Boy Scouts of America - 1997
- WSSI subdivides 125 acres and buys from Boy Scouts - 1999
- WSSI develops North Fork Wetland Bank - June 1999-March 2000
- WSSI donates the property back to the Boy Scouts of America – July 2001



MITIGATION BANKING INSTRUMENT (MBI)

- February, 1999: MBI signed by COE, EPA and DEQ with a non-binding condition (2-yr process)
- Major MBI Issues:
 - Open Water
 - Boy Scout Usage
 - 1 Dam vs. 3 Dams
 - Design Standards for Dam
 - USFWS did not sign MBI

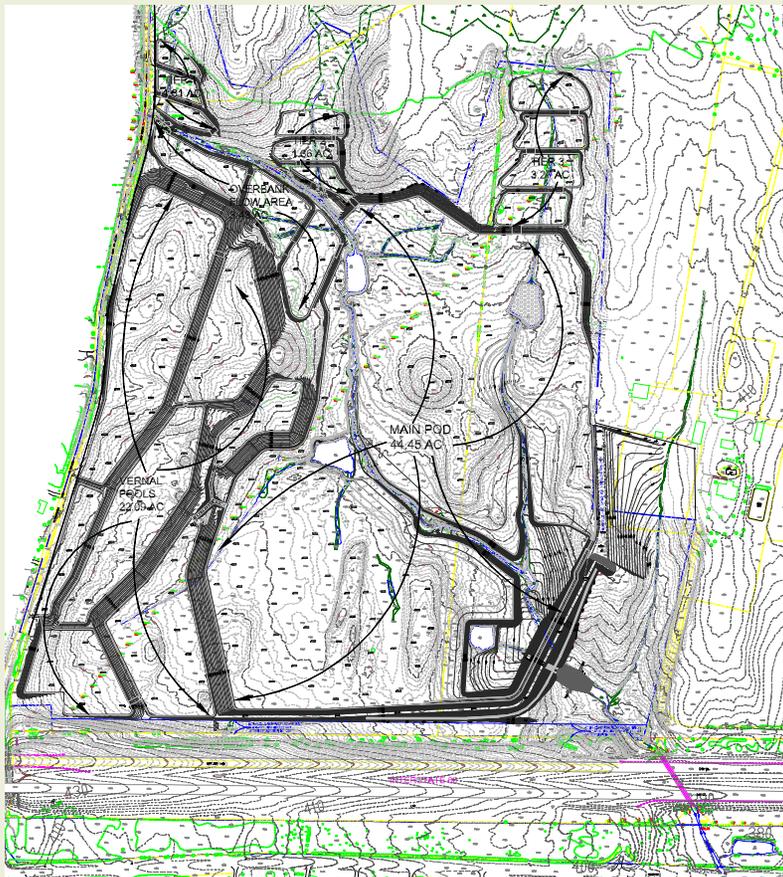


1999: EXISTING CONDITIONS



February 23, 1999

CONSTRUCTION OF WETLANDS



Design: March 1999



Construction: September 17, 1999

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CONSTRUCTION OF WETLANDS



Delivering the Clay Liner Material



Construction of the Clay Liner



Stockpiling Clay Liner Material



Spreading Topsoil on Clay Liner

CONSTRUCTION OF WETLANDS



Wetlands Area at Final Grade



Newly Seeded Wetlands Area



Seeding the Wetlands Areas



September 2000 – 1st Growing Season

CONSTRUCTION COMPLETED



September 20, 2000

Objectives Achieved:

- Create wetlands habitat acceptable to regulatory agencies for mitigation of wetlands impacts in Northern Virginia
- Provide educational and recreational opportunities for the Boy Scouts of America

CONSTRUCTION COMPLETED (CONTINUED)



September 20, 2000

Objectives Achieved:

– Attract a diverse mixture of wildlife by selecting and planting a diverse mixture of native plants, including:

- 59,150 trees, 11 different species
- 30,400 shrubs, 9 different species
- 7,175 emergents, 9 different species
- 2,380 floating aquatics,
3 different species
- 16,070 lbs of herbaceous seeds,
51 different species

MONITORING A SUCCESS



- **588 woody stems per acre and 90% herbaceous cover in Forested and Scrub/Shrub Wetlands - MBI requirement of 400 woody stems per acre**
- **94% herbaceous coverage in emergent wetlands – MBI requirement of 60% coverage in Year 2**
- **WSSI staff, Fairfax Audubon Society members, and other birdwatchers have documented over 170 bird species, as well as high densities of turtles and amphibians**

MITIGATION CREDIT USERS

38 Projects have utilized North Fork Wetlands Bank to date



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DEDICATION TO THE BOY SCOUTS



EDUCATION AND RECREATION



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WETLANDS AND WILDLIFE IN HAYMARKET, VIRGINIA



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