

North Carolina Certified Floodplain Surveyor (CFS) Pilot Program

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North Carolina Emergency Management



NC CFS Pilot Program Overview



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NC CFS Pilot Program Overview

- North Carolina Certified Floodplain Surveyor (CFS) Pilot Program is a joint effort between:
 - Federal Emergency Management Agency (FEMA)
 - American Congress on Surveying and Mapping (ACSM)
 - North Carolina Society of Surveyors (NCSS)
 - North Carolina Division of Emergency Management (NCEM)
 - North Carolina Geodetic Survey (NCGS)



FEMA



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NC CFS Pilot Program Overview

- Goal of the CFS Program:
 - Provide training to NC surveyors to enable them to submit completed Letters of Map Change (LOMCs) to FEMA in the proper format required to obtain a faster determination
 - Consistent and correct completion of Elevation Certificates
- Who qualifies to be a CFS?
 - Professional Surveyors Licensed in the State where the certification is offered

NC CFS Pilot Program Overview

- Requirements

- Attend Training Sessions (2 ½ Days)
- Pass Examination
- Bi-Annual 4-hour Refresher Training

- Examination

- 125 Questions, All Multiple Choice
- 4 Hours, 2 Parts
- Must receive 75% on Part I and 85% on Part II
- Failing either part results in a failed exam

NC CFS Pilot Program Overview

- Statistics

- There are currently 133 CFS Certified Surveyors in the state as this certification has become more popular with recent mapping updates.

- Benefits

- A CFS can process “simple” Letters of Map Change (LOMCs) and submit these to FEMA for accelerated processing and issuance within 5 business days
- Name listed as a CFS on NC Society of Surveyors web site



NORTH CAROLINA SOCIETY OF SURVEYORS

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Certified Floodplain Surveyor (CFS) Program

This certification program educates surveyors on the forms and processes associated with floodplain properties and the submittal of Elevation Certificates. To become CFS certified, licensed surveyors must successfully complete the three-day certification seminar and exam. PDH's are awarded for the seminar, however no PDH credit is given for the exam. The specific topics covered in the course are: National Flood Insurance Program (NFIP), FIRM Maps, NFIP Regulations and Elevation Certificates, Letters of Map Correction and Letters of Map Correction Processing. There are currently over 200 CFS Certified Surveyors in the state as this certification has become more popular with recent floodplain/form changes. NCSSS offers annually for surveyors seeking to add this certification to their resume.

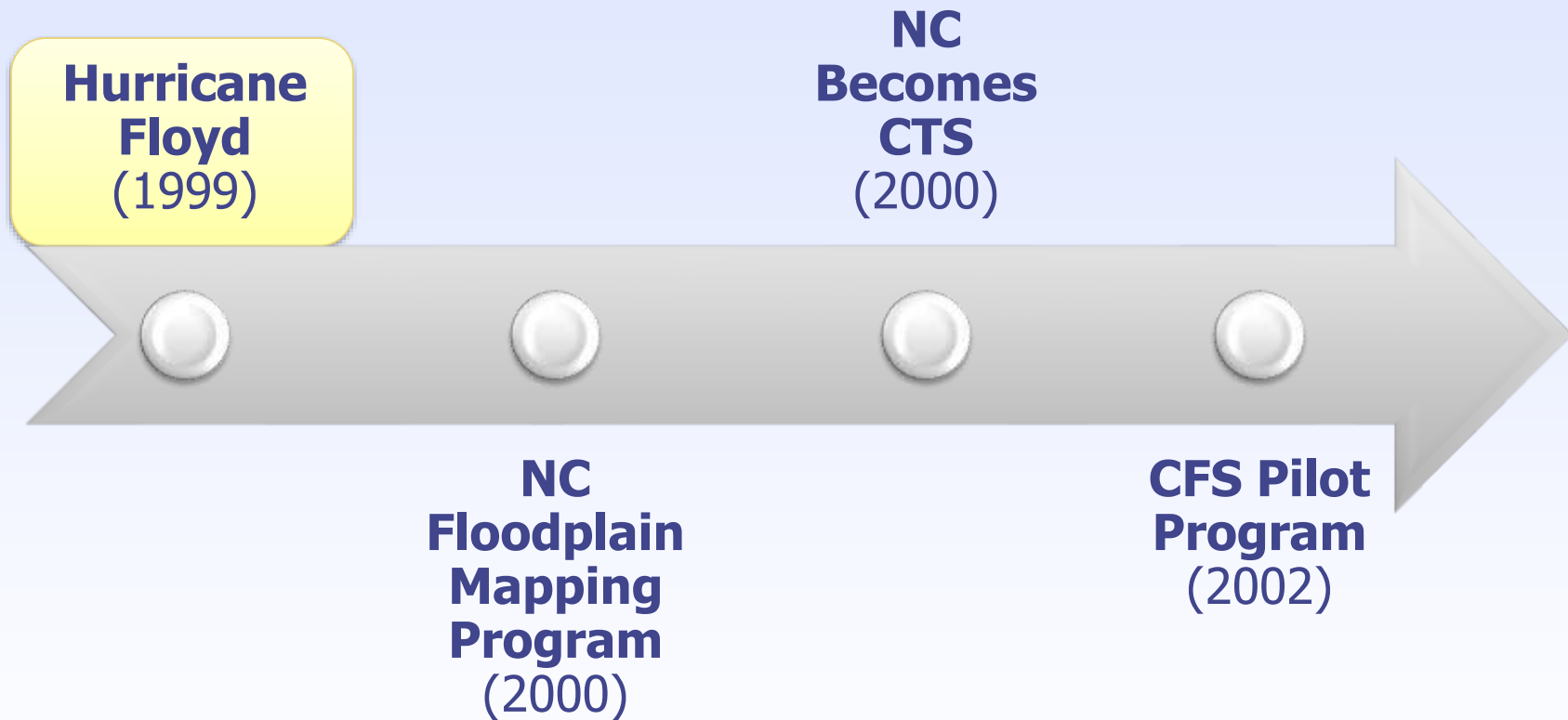
CFS Contacts



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History of the CFS Program



History of the CFS Program

Hurricane Floyd, 1999

- The effects of Hurricane Floyd on North Carolina
 - 51 deaths
 - \$3.5 billion in damages to homes, businesses, roads, and infrastructure
 - 31,000 jobs lost
- Hurricane Floyd revealed flood hazard data and map limitations
- Most flood maps in NC were older than 12 years with some up to 30 years old



History of the CFS Program

**Hurricane
Floyd
(1999)**

**NC
Becomes
CTS
(2000)**

**NC
Floodplain
Mapping
Program
(2000)**

**CFS Pilot
Program
(2002)**



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History of the CFS Program

North Carolina Floodplain Mapping Program (NCFMP)


- What is the North Carolina Floodplain Mapping Program (NCFMP)?
 - The establishment of a statewide program to acquire, process, and disseminate current, accurate, and detailed elevation data, flood hazard studies, and digital FIRMs



History of the CFS Program

North Carolina Flood Risk Information System

As part of the digital display environment and Map Maintenance Initiatives, the North Carolina Floodplain Mapping Program (NCFMP) created a website to disseminate information to mapping partners and the public.



FRIS

North Carolina Flood Risk Information System

Download

Am I at risk of flooding?

General Public

Enter all or part of your address and click GO.

GO

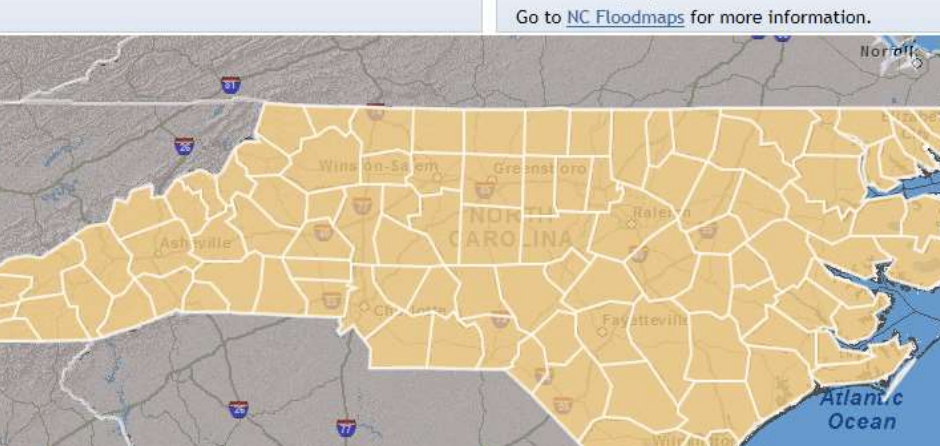
OR select a county

County

Benefits of Floodplain Mapping

Floods are among the most frequent and costly natural disasters in terms of human hardship and economic loss. North Carolina's Digital Flood Insurance Rate Maps (DFIRM) enable business leaders and residents to more accurately predict flood hazards and prepare for flood risks.

Go to [NC Floodmaps](#) for more information.





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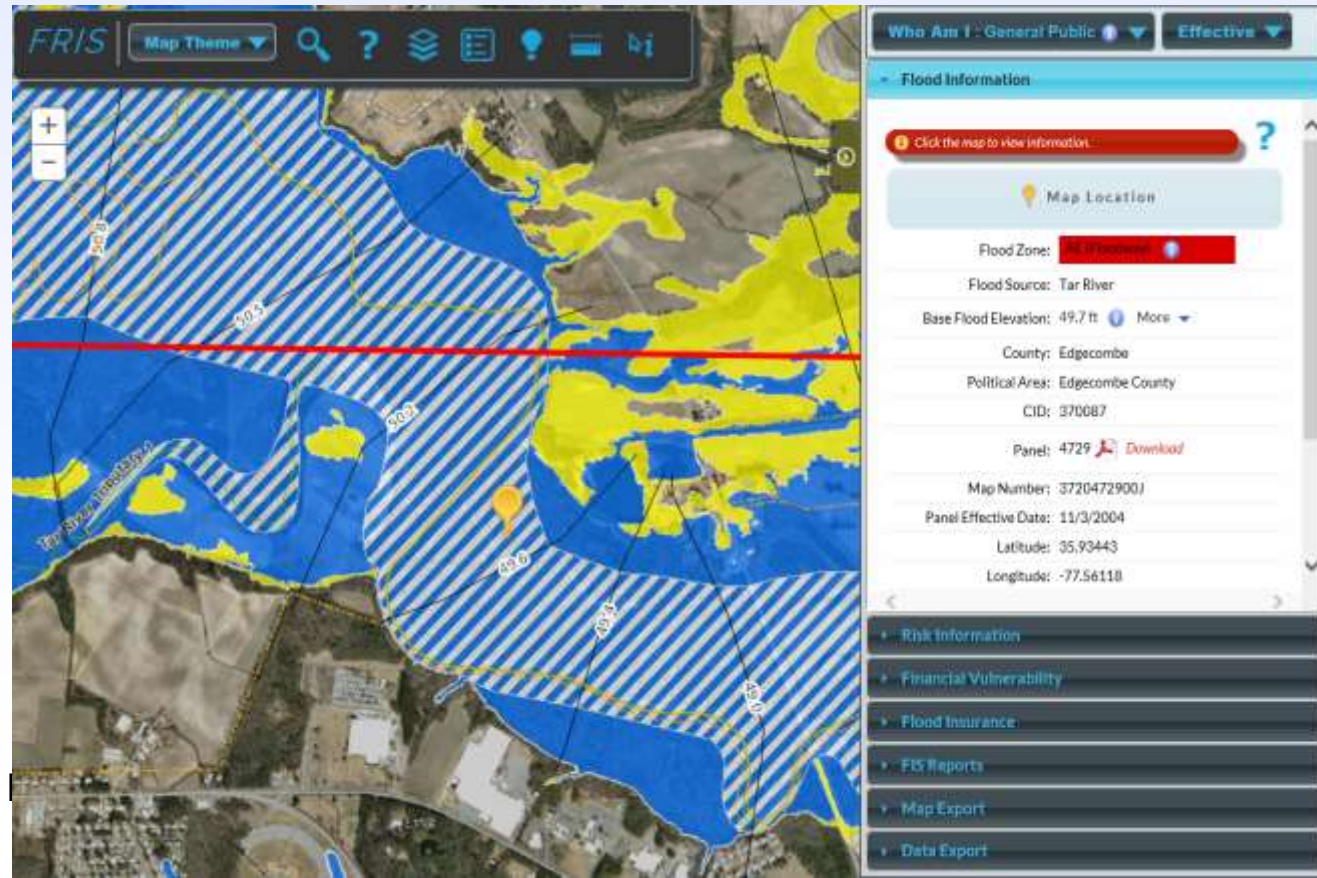


History of the CFS Program

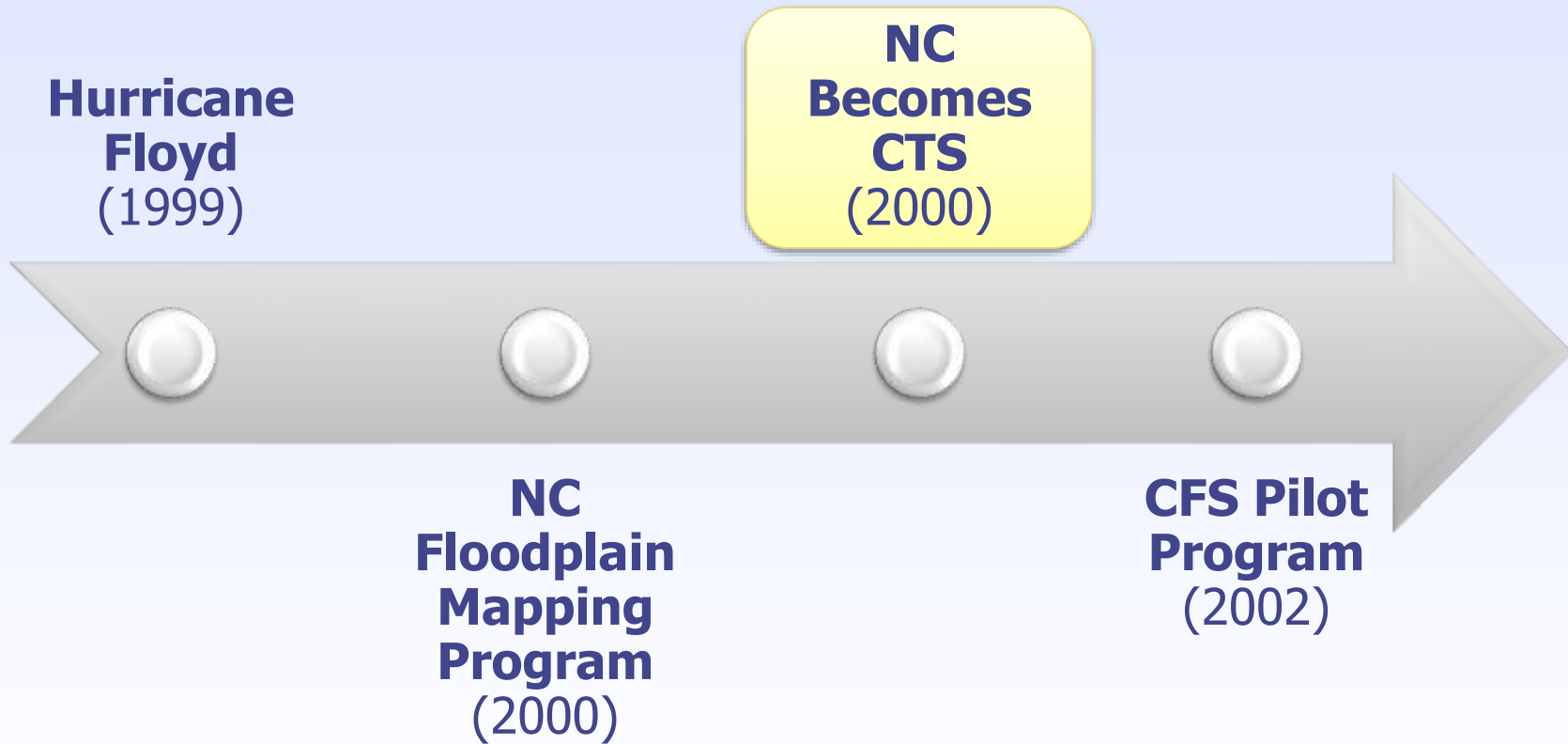
North Carolina Flood Risk Information System

The website contains digitally accessible flood hazard and risk data that are database driven, allowing for print-on-demand products such as flood maps and Flood Insurance Studies (FIS).

The website, shown on the right, also provides geospatial data and modeling information for use by others.



History of the CFS Program



History of the CFS Program

North Carolina becomes a Cooperating Technical State

- What is a Cooperating Technical State (CTS)?
 - A State, as designated by FEMA, that assumes primary ownership and responsibility of the National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRMs) for all its communities
- North Carolina was designated as the first Cooperating Technical State (CTS) in 2000



North Carolina Emergency Management



History of the CFS Program

**Hurricane
Floyd
(1999)**

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**NC
Floodplain
Mapping
Program
(2000)**

**CFS Pilot
Program
(2002)**



North Carolina Emergency Management



NC CFS Program Training Course






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NC CFS Program Training Course

- The specific topics covered in the 2 ½ day course are:
 - National Flood Insurance Program
 - Overview
 - Regulations
 - Flood Insurance Study (FIS)
 - Elevation Certificates (EC)
 - Letters of Map Change (LOMC) Processing
 - On-Line LOMC and eLOMA
 - Flood Risk Information System

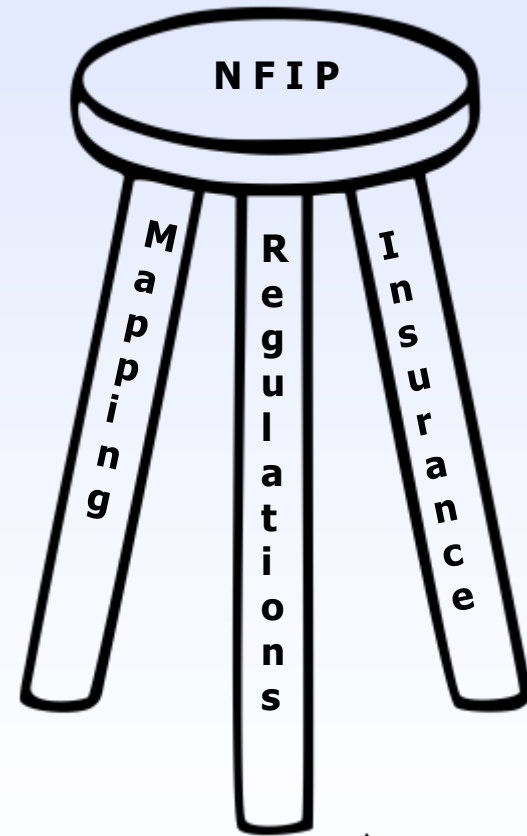
NC CFS Program Training Course

Training day 1 @ NCSS Office Wednesday, October 11 8:00 am – 5:00 pm	Training day 2 @ NCSS Office Thursday, October 12 8:00 am – 5:00 pm	Training day 3 @ NCSS Office Friday, October 13 8:00 am – 5:00 pm	CFS exam @ NCNG Military Complex Saturday, October 14 8:30 am – 12:30 pm
Registration 7:30 - 8:00	Registration 7:30 - 8:00	Registration 7:30 - 8:00	<p align="center">CFS Exam Proctor: Gary Thompson, NCGS</p> <p align="center">Joint Forces Headquarters/NCEM Situation Room NC National Guard Military Complex 1636 Gold Star Drive Raleigh, NC 27607</p> <p align="center">8:30 am – 12:30 pm</p>
<p>Introduction Gary Thompson, NCGS</p> <p>NFIP Overview Dan Brubaker, NCFMP</p> <ul style="list-style-type: none"> FEMA & NFIP Structures Regs & terms FIS & FIRM Profile BFEs Quiz <p>NFIP Regulations Dan Brubaker, NCFMP</p> <ul style="list-style-type: none"> Overview Part 65: ID & mapping of an SFHA Part 70: Map correction Homeowner Flood Insurance Affordability Act of 2014 Quiz 	<p>LOMC Processing: Part I Steve Garrett, NCFMP</p> <ul style="list-style-type: none"> LOMA & LOMR-F CFS processed LOMC Data requirements: LOMA & LOMR-F Fees, revalidations, & common problems Labs 	<p>Online LOMC and eLOMA Steve Garrett, NCFMP</p> <ul style="list-style-type: none"> Online LOMC requirements & info that may be required eLOMA requirements What eLOMA auditors audit <p>FRIS Training Stacey Fuller Bobbitt, NCFMP</p> <ul style="list-style-type: none"> Print on demand: FIS & FIRM Data download: Shapefile, DFIRM, LIDAR, & geodatabase Flood hazard & risk info What to record on an EC as the elevation source Finding LOMRs & finding benchmarks 	
LUNCH 12:00 - 1:00 pm	***LUNCH 12:00 - 1:00 pm***	***LUNCH 12:00 - 1:00 pm***	
<p>NFIP Regulations (continued)</p> <p>Elevation certificates Dan Brubaker, NCFMP</p> <ul style="list-style-type: none"> Current version (11-12-2012 fillable form) Purposes Pre-FIRM vs. Post-FIRM Sections & diagrams Quiz 	<p>LOMC Processing: Part II Steve Garrett, NCFMP</p> <ul style="list-style-type: none"> LOMC issuance FEMA oversight CFS support Labs Quiz 	<p align="center">CFS exam: Question and Answer (Q&A) Session Dan Brubaker, NCFMP Steve Garrett, NCFMP</p> <p align="center">Attendance is <u>not</u> required for this session for any of those aspiring surveyors pursuing CFS certification</p> <p align="center">1:00 - 5:00 pm</p>	<p>Sponsored by:</p> <ul style="list-style-type: none"> National Society of Professional Surveyors (NSPS)  NC Floodplain Mapping Program (NCFMP)  NC Society of Surveyors (NCSS) 

NC CFS Program Training Course

■ NFIP Goals

- Reduce loss of life and property
- Reduce rising disaster relief costs
- Increase importance of hazard mitigation (flood resistant construction, guide future development, and prohibit development in floodplains)
- Protect natural resources and functions of floodplains
- Decrease taxpayer-funded disaster costs
- Make Federally backed insurance coverage available to property owners



NC CFS Program Training Course

- Flood Insurance Study (FIS)
 - Appraises a community's flood problems/risk
 - Estimates flood flow frequency
 - Establishes flood elevation
 - Plots floodplain boundaries
 - Provides data to delineate floodways and non-encroachment areas
 - Establishes insurance risk zones

Report Builder ✕

Report Type:

County:

- ☒ Cover
- ☒ 1. Introduction
- ☒ 2. Floodplain Management Applications
- ☒ 3. Insurance Applications
- ☒ 4. Area Studied
- ☒ 5. Engineering Methods
- ☒ 6. Mapping Methods
- ☒ 7. Revising the FIS
- ☒ 8. Study Contracting and Community Coordination
- ☒ 9. Guide to Additional Information
- ☒ 10. Appendix

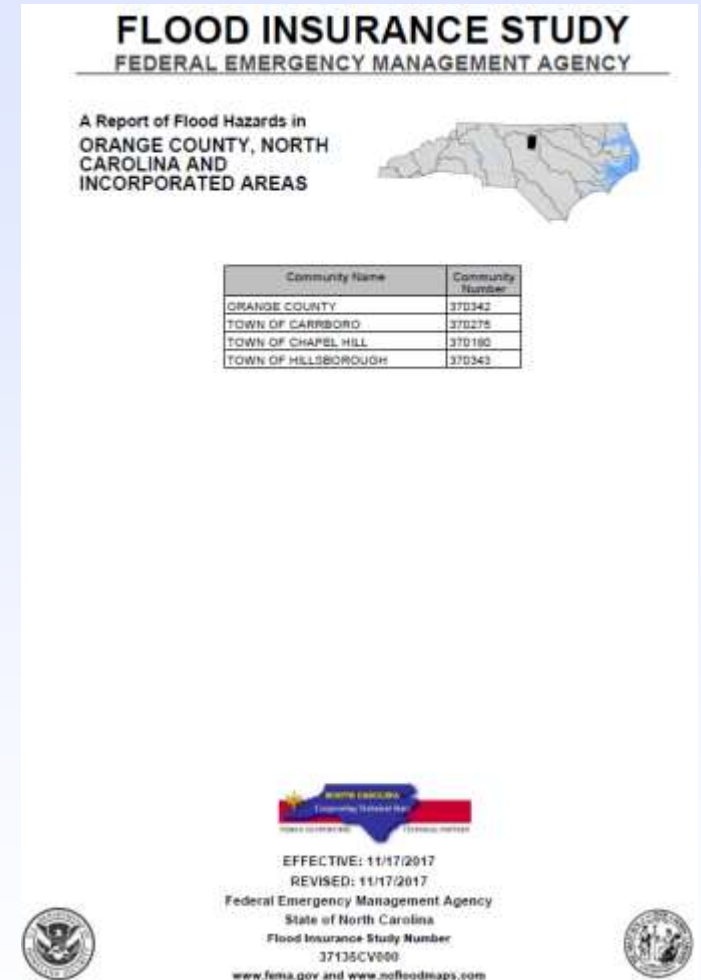
Additional Documents

☐ Index Map

[Print](#)

NC CFS Program Training Course

- Flood Insurance Study (FIS) Components
 - FIS Report – written text, flooding information, figures, and tables
 - Digital Flood Insurance Data – Digital representation and spatial distribution of flood hazard areas, flood insurance risk zone, BFEs, floodways, and other flood related data



NC CFS Program Training Course

■ NFIP Regulations

- Communities must adopt and enforce ordinances that meet or exceed NFIP criteria
- NFIP criteria are designed to ensure that new buildings will be protected from flood elevation levels shown on Flood Insurance Rate Map (FIRM)
- Over time, stock of pre-FIRM buildings should be replaced with post-FIRM buildings and exposure to flooding reduced

NC CFS Program Training Course

- Elevation Certificate (EC)
 - It is to be used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR-F).

NC CFS Program Training Course

■ Elevation Certificate (EC)

U.S. DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency National Flood Insurance Program		OMB No. 1660-0008 Expiration Date: November 30, 2018
ELEVATION CERTIFICATE Important: Follow the instructions on pages 1-9.		
Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.		
SECTION A – PROPERTY INFORMATION		FOR INSURANCE COMPANY USE
A1. Building Owner's Name <input type="text"/>		Policy Number: <input type="text"/>
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <input type="text"/>		Company NAIC Number: <input type="text"/>
City <input type="text"/>	State <input type="text"/>	ZIP Code <input type="text"/>
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) <input type="text"/>		
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <input type="text"/>		
A5. Latitude/Longitude: Lat. <input type="text"/> Long. <input type="text"/> Horizontal Datum: <input type="checkbox"/> NAD 1927 <input type="checkbox"/> NAD 1983		
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.		
A7. Building Diagram Number <input type="text"/>		

Option 1

Do Nothing

Your discounted rate will increase by up to 18 percent each year.



Option 2

Get an Elevation Certificate

There's no way to know exactly when having an Elevation Certificate will be beneficial, but www.FEMA.gov/cost-of-flood provides some guidance. If you get an Elevation Certificate, you can continue to pay the discounted rate if it's lower.



How to Get an Elevation Certificate

An Elevation Certificate verifies the elevation of your building. Ask if your local floodplain manager if there is one on file. If not, you can hire a licensed surveyor to provide one.



See Your Agent for Your Rate.

Knowing this, you'll know you're getting the best protection at the rate which fits your risk.



NC CFS Program Training Course

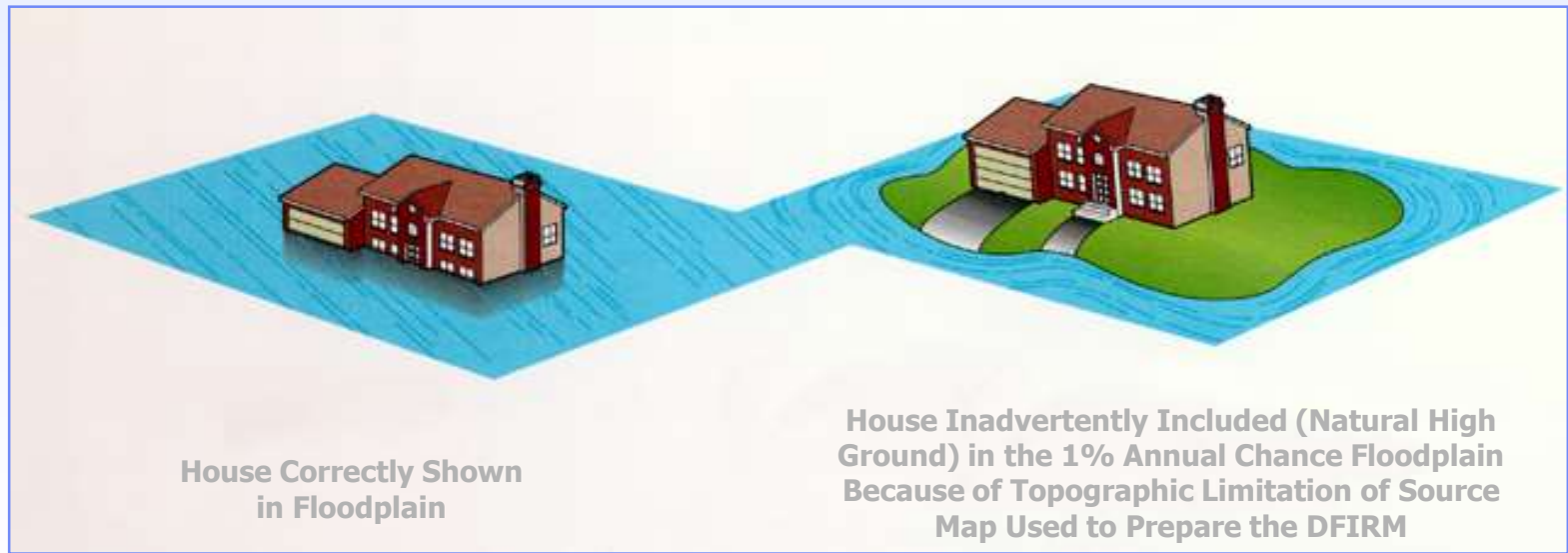
- Letter of Map Change (LOMC)
 - Document issued by FEMA that officially amends or revises the digital FIRM and/or FIS report
- Why Use LOMC Process?
 - Less costly and faster than republishing FIRM data

Types of Cases Eligible Under CFS Process



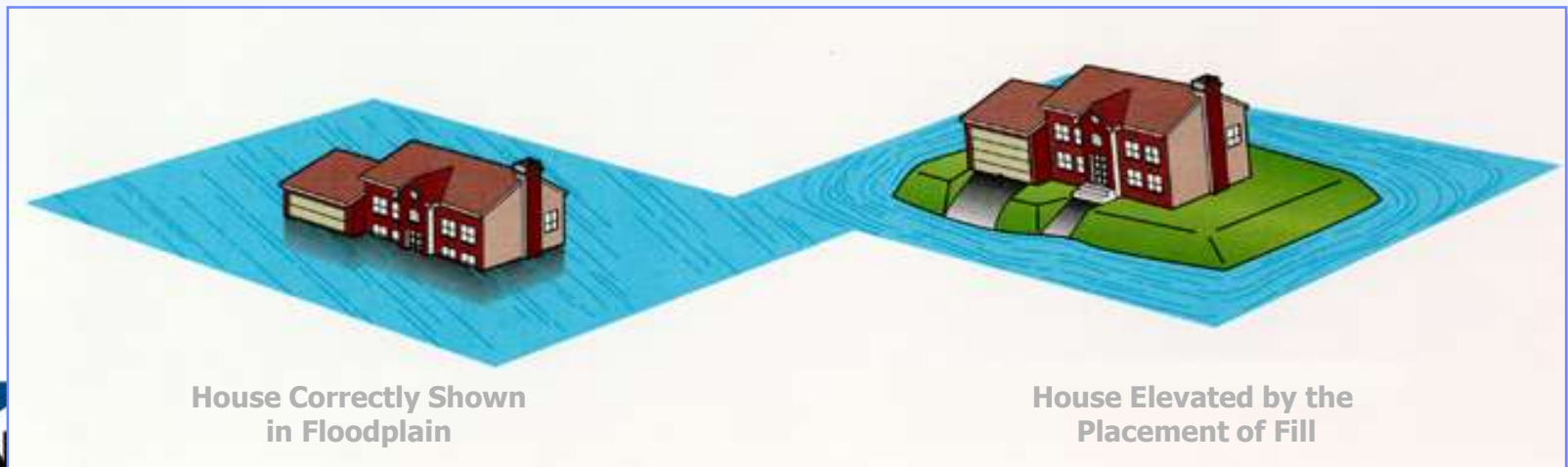
Types of Cases Eligible Under CFS Process

- LOMA/LOMR-F for:
 - Existing single or multiple structures, properties, and metes and bounds constructed on fill or natural ground



Types of Cases Eligible Under CFS Process


- LOMA/LOMR-F for:
 - Existing structures, properties, and metes & bounds in riverine, lacustrine, and stillwater coastal flooding areas
 - Zone AE only; VE Zones are not eligible
 - Process and submit to FEMA's Production and Technical Services (PTS) Contractor for expedited review and issuance






Types of Cases Eligible Under CFS Process

- LOMA/LOMR-F for:
 - Existing structures, properties, and metes & bounds in Zone AE flooding areas only if a Base Flood Elevation (BFE) is available from a State or Federal governmental agency or other accepted source

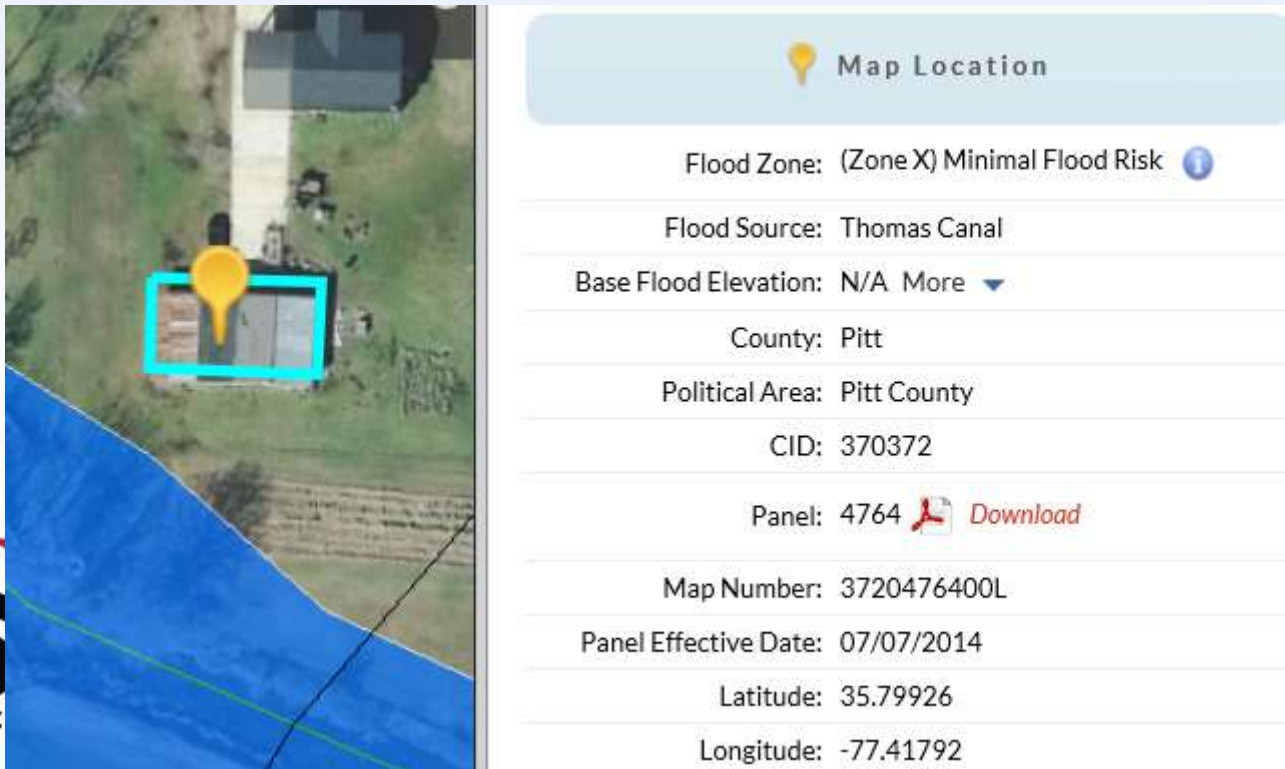


 Map Location

Flood Zone:	AE
Flood Source:	Crisp Creek
Base Flood Elevation:	54.9 ft  More 
County:	Edgecombe
Political Area:	Edgecombe County
CID:	370087
Panel:	4786  Download
Map Number:	3720478600K
Panel Effective Date:	9/19/2007
Latitude:	35.85012
Longitude:	-77.37028

Types of Cases Eligible Under CFS Process

- LOMA/LOMR-F for:
 - Existing structures, properties, and metes & bounds are not located in the mapped floodprone zone/Special Flood Hazard Area. This mean the subject of the LOMA/LOMR-F is Out as Shown (OAS)



Types of Cases Eligible Under CFS Process

- All submittals received by FEMA that do not meet these criteria will be processed using standard procedures and may take up to 60 days after all required data is received to complete processing.



North Carolina Certified Floodplain Surveyor (CFS) Pilot Program

- Summary:

- Course available to Professional Surveyors
- Must attend 2 ½ day class and pass exam
- A CFS can submit LOMC and get a determination within 5 business days
- The CFS Program supports the digital FIRM updates as part of the State's map maintenance efforts



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Questions?

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