## Introduction

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. The website, Flood Risk Information System (FRIS) http://fris.nc.gov/fris/ 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 base map data, imagery, LiDAR data (topographic data), along with hydraulic and hydrologic models that will be available for download and use.

Program reports, issue papers, river basin restudy information, outreach/education materials, information


regarding the NCFMP and the National Flood Insurance Program, statewide mapping status, Letters of Map Change, Summary of Map Actions, and NCFMP Contacts are all found under the **About FRIS** link on the main page shown at left. There is also a News and Announcements section and website links to other local, state, and national agencies.
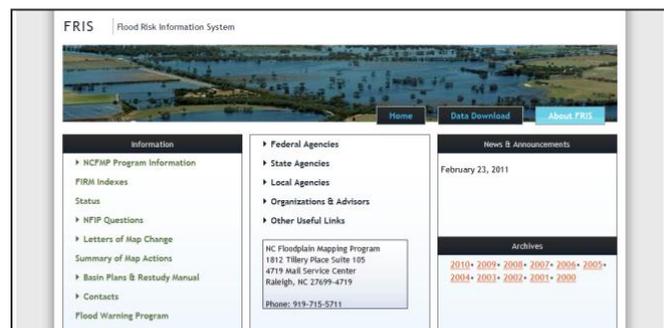
Shown at right is the **Data Download** tab in the FRIS webpage. County data such as the effective database, LiDAR, imagery, and other flood hazard data can be downloaded for use. In addition, field survey and flood study modeling will also be accessible.
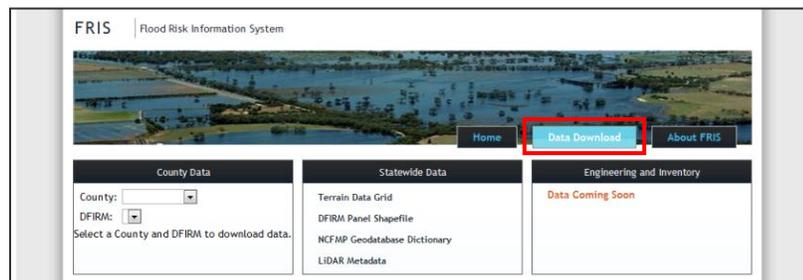
The FRIS website presents information targeted to two audiences: the general public and advanced users. The general public can identify the level of flood risk and estimated damage losses associated with their property. By typing in their address, users can locate their property and view the flood hazard and risk information associated with it such as the flooding source, the flood event water surface elevation, and the flood zone, if applicable. Advanced users, such as floodplain managers and government officials, will have the opportunity to download flood hazard data while also being able to identify levels of flood risk for buildings in the community.
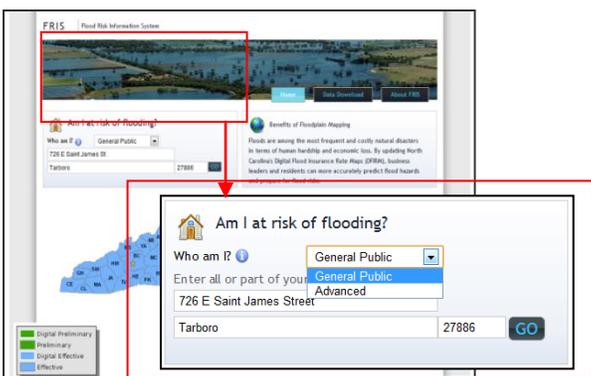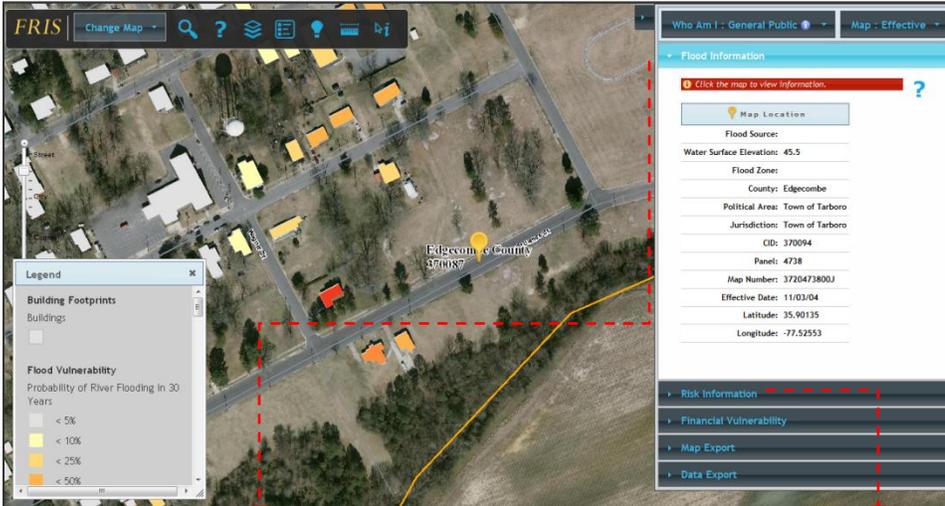
Shown on the left is an example of a search in Edgecombe County, selected by the general public. Using the Address Lookup on the main FRIS webpage, a user can view a structure's relationship to the floodplain and learn of its associated financial vulnerability. Using the FRIS toolbar in the top left of the page, a user can select the type of map, add layers to the map, add a map legend, measure distances, and identify flood hazard features such as flood zones, cross sections, panel numbers, hydraulic structures, and major roads.

Map screenshot panel (left):

FRIS | Change Map

Legend
Building Footprints
Buildings

Flood Vulnerability
Probability of River Flooding in 30 Years
< 5%
< 10%
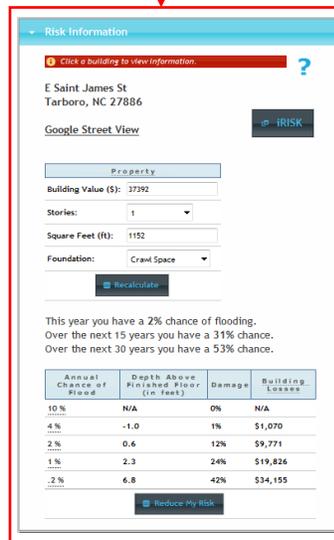< 25%
< 50%

Edgecombe County 370087

Flood Information panel (right of map):

Who Am I : General Public | Map : Effective

▼ Flood Information
Click the map to view information.
Map Location
Flood Source:
Water Surface Elevation: 45.5
Flood Zone:
County: Edgecombe
Political Area: Town of Tarboro
Jurisdiction: Town of Tarboro
CID: 370094
Panel: 4738
Map Number: 3720473800J
Effective Date: 11/03/04
Latitude: 35.90135
Longitude: -77.52553

▸ Risk Information
▸ Financial Vulnerability
▸ Map Export
▸ Data Export

Flood Information tab (lower left screenshot):

▼ Flood Information
Click the map to view information.
Map Location
Flood Source:
Water Surface Elevation: 45.5
Flood Zone:
County: Edgecombe
Political Area: Town of Tarboro
Jurisdiction: Town of Tarboro
CID: 370094
Panel: 4738
Map Number: 3720473800J
Effective Date: 11/03/04
Latitude: 35.90074
Longitude: -77.52638
Impacted Structure
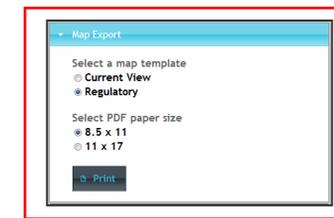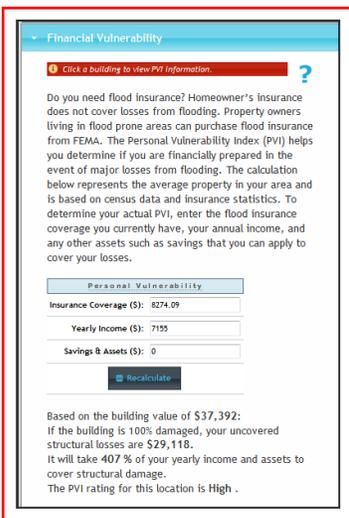Parcel ID: 473865492700
Intersecting Flood Zone: AE

In the Flood Information tab, FRIS provides the flooding source, base flood elevation, flood zone, county, political area, panel number, and effective date for the property address entered by a user. If a user clicks on a specific structure, the Parcel ID and the intersecting flood zone are also provided.

Risk Information tab:

▼ Risk Information
Click a building to view information.
E Saint James St
Tarboro, NC 27886
Google Street View
iRISK

Property
Building Value ($): 37392
Stories: 1
Square Feet (ft): 1152
Foundation: Crawl Space
Recalculate

This year you have a 2% chance of flooding.
Over the next 15 years you have a 31% chance.
Over the next 30 years you have a 53% chance.

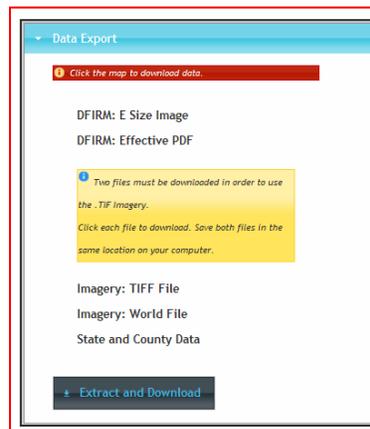| Annual Chance of Flood	Depth Above Finished Floor (in feet)	Damage	Building Losses
10 %	N/A	0%	N/A
4 %	-1.0	1%	$1,070
2 %	0.6	12%	$9,771
1 %	2.3	24%	$19,826
.2 %	6.8	42%	$34,155

Reduce My Risk

The Risk Information tab provides property specific information such as the building's value, number of stories, square footage, and foundation type. The tab then provides the user with the property's percent annual chance of flooding in any given year and the estimated losses associated with each flood event scenario.

The Financial Vulnerability tab allows a user to calculate personal vulnerability. A user can enter the amount of flood insurance coverage on the structure, their annual income, and other assets they can apply to cover losses. Using the building's value and estimated relocation and contents costs, FRIS calculates flood losses and estimates the impact to a user's finances.

Financial Vulnerability tab:

▼ Financial Vulnerability
Click a building to view PVI information.

Do you need flood insurance? Homeowner's insurance does not cover losses from flooding. Property owners living in flood prone areas can purchase flood insurance from FEMA. The Personal Vulnerability Index (PVI) helps you determine if you are financially prepared in the event of major losses from flooding. The calculation below represents the average property in your area and is based on census data and insurance statistics. To determine your actual PVI, enter the flood insurance coverage you currently have, your annual income, and any other assets such as savings that you can apply to cover your losses.

Personal Vulnerability
Insurance Coverage ($): 8274.09
Yearly Income ($): 7155
Savings & Assets ($): 0
Recalculate

Based on the building value of $37,392:
If the building is 100% damaged, your uncovered structural losses are $29,118.
It will take 407 % of your yearly income and assets to cover structural damage.
The PVI rating for this location is High .

Map Export tab:

▼ Map Export
Select a map template
○ Current View
● Regulatory
Select PDF paper size
● 8.5 x 11
○ 11 x 17
Print

In the Map Export tab, a user can choose the map template and the paper size of the print-on-demand flood map that can be created for the property researched by a user.

Data Export tab:

▼ Data Export
Click the map to download data.

DFIRM: E Size Image
DFIRM: Effective PDF

Two files must be downloaded in order to use the .TiF Imagery.
Click each file to download. Save both files in the same location on your computer.

Imagery: TIFF File
Imagery: World File
State and County Data

Extract and Download

In the Data Export tab, a user is able to extract and download imagery, state and county data, and the current effective FIRM PDF map panel for the location of the property address entered.