

# National Flood Insurance Program

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## Agenda

- NH Coastal Mapping Project
- Biggert-Waters Flood Insurance Reform Act of 2012
- Grimm-Waters Homeowner Flood Insurance Affordability Act (GW-HR3370)



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## Risk MAP (Mapping, Assessment, and Planning) Vision

### Vision Statement:

With State, Local, Tribal, Non-Profit and Private-Sector collaboration, Risk MAP delivers **quality data** that increases **public awareness** and leads to **action that reduces risk** to life and property



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**Proposed Dates**

**Preliminary Maps**  
April 9, 2014

**Map Meetings**  
Early to Mid-May 2014

**Final Maps**  
Late 2015

## Project Partners

Role	Partner
Project Management	UNH
Riverine Analysis – H&H Modeling	USGS Water Resources Center (Pembroke)
Coastal Analysis	AECOM (Boston)
Database Compilation, DFIRM/FIS Production	UNH
Outreach	NH Office of Energy and Planning
Non-Regulatory Products	UNH, AECOM



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## Project History

- **December 2010** – Project Kick-Off
- **August 2011** – Calls w/ communities regarding data availability & areas of concern
- **September 22, 2011** – Discovery Mtgs
- **August 1, 2013** – Work Map Mtgs



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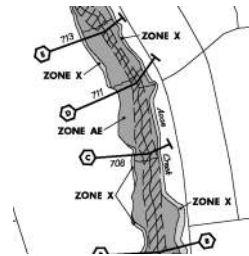


## NH Coastal Project - Best Available Data

- 2010 1-ft. Orthophotography
- Coastal LiDAR – 2 meter Digital Elevation Model; 15 cm vertical accuracy
- Field Data Collection



## Mapping Riverine Floodplains: Zone AE Enhanced Study

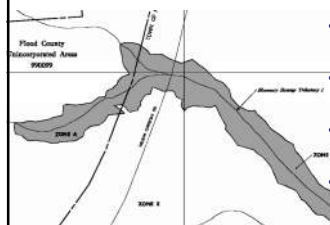


- Traditional detail study
- Sections field surveyed
- All hydraulic structures surveyed
- Detailed hydrologic analysis
- Traditional mapping
  - Floodways
  - Floodway Data Table
  - Flood Profile

## Mapping Riverine Floodplains: Zone AE Enhanced Study

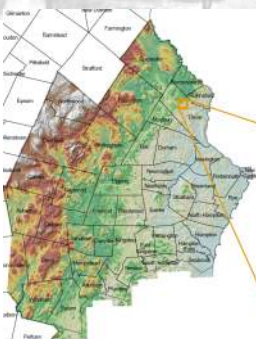
Flooding Source	Miles
Exeter River	7.53
Lamprey River	4.5
Oyster River	3.75
Squamscott River	0.8

## Mapping Riverine Floodplains: Zone A Basic Study



- Replaces Unnumbered A Zones
- Much more automated approach
- Hydrology from Regional Equations
- Hydraulic Models Developed
- Flood boundaries mapped from model output
- Approx 136 miles of Zone A

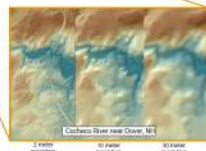
## Mapping Riverine Floodplains: Revisions due to Updated Topography



### Coastal LIDAR Acquisition 2-Meter Resolution

The map displays the data acquisition footprint for the coastal LIDAR data set. The data provides coverage for 45 communities, including over approximately 600 square miles.

The graphic below illustrates the increased information content provided by the 2-meter topographic data, as contrasted with the lower resolution data sets (12 meter and 30 meter) available for the rest of New Hampshire.



Effective DFIRM (2005)

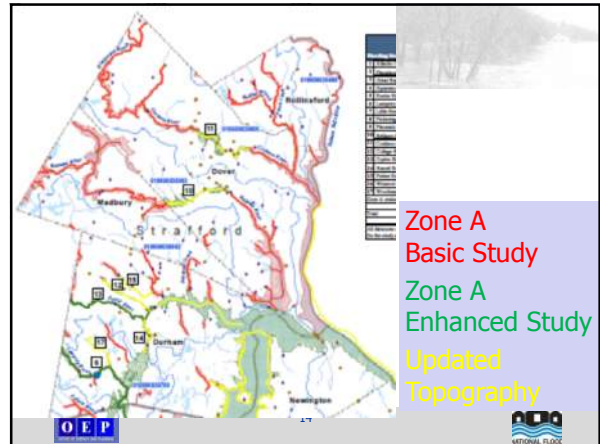
Preliminary DFIRM (2014) - DRAFT

Structure coming out of floodplain

Structure newly mapped in floodplain

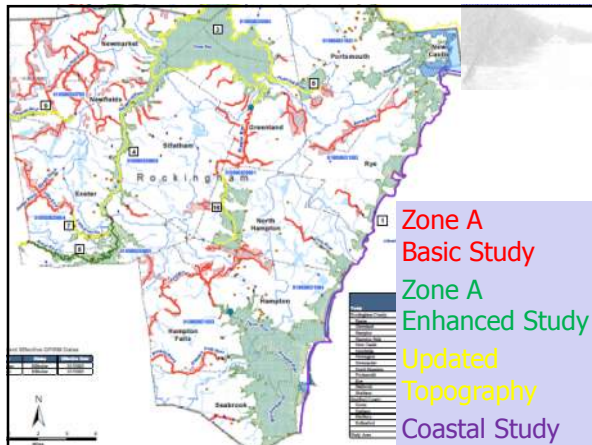
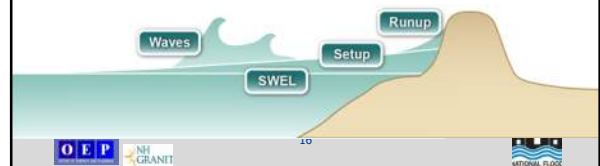
## Mapping Riverine Floodplains: Revisions due to Updated Topography

Flooding Source	Miles	Flooding Source	Miles
Bellamy River	2.6	Pettee Brook	1.3
Cochecho River	2.3	Pickering Brook	1.8
College Brook	1.7	Piscassic River	3.4
Exeter River	0.5	Piscataqua River	13.1
Great Bay shoreline	32.0	Squamscott River	5.0
Hamel Brook/ Longmarsh Brook	1.1	Winnicut River	3.7
Little River No. 1 (Exeter)	2.3	Woodman Brook	1.2

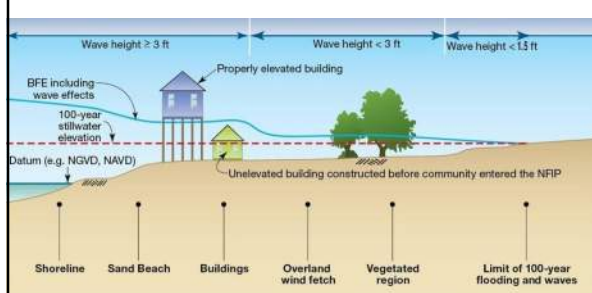


## Coastal Methods: Components to Base Flood Elevation

1. Storm surge stillwater elevation (SWEL)
2. Amount of wave setup
3. Wave height above storm surge (stillwater + setup) elevation
4. Wave runup above storm surge elevation (where present)

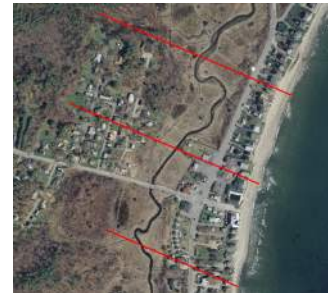


## Mapping Coastal Flood Zones



## Coastal Methods: Field Reconnaissance

- Observe features that cannot be seen from imagery
  - Classify terrain
  - Identify raised buildings
  - Determine vegetation density
- Reality check for model results





## Regulatory Products: FIRMs and Flood Insurance Study

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## Non-Regulatory Products: Flood Risk Map and Report

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## Non-Regulatory Products: Changes Since Last FIRM

**Legend**

- SFHA Added
- SFHA Removed
- SFHA Unchanged

**Structures**

- Now in SFHA
- In SFHA
- No Longer in SFHA
- Not in SFHA

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## Non-Regulatory Products: Riverine/Coastal Depth Grids

Each Grid Cell has a Unique Value

FIRM 1% Annual Chance (100-yr) Floodplain

1% Annual Chance Depth Grid

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## Limit of Moderate Wave Action (LiMWA)

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## Non-Regulatory Products: Limit of Moderate Wave Action (LiMWA)

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## Non-Regulatory Products: Hazus Multi-Hazard Analysis

- Dollar Losses
  - Residential Loss
  - Commercial Loss
  - Other Asset Loss
- Percent Damage
  - Evaluates Building Stock
  - Structure and Contents
- Business Disruption
  - Considers Total Occupancy Tables
  - Considers Lost Income and Margins
- Social Impacts
  - Estimates Displaced Households
  - Anticipated Shelter/Hospitalization Requirements



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## Non-Regulatory Products: Sea Level Rise Analysis

- Developed GIS layers of extent of inundation and depth grids for 4 sea level rise horizons along coast, Piscataqua River and Great Bay
  - Mean high-high water + 1.7 ft (2050)
  - Mean high-high water + 6.3 ft (2100)
  - 100-yr floodplain + 1.7 ft (2050 w/ 100-yr event)
  - 100-yr floodplain + 6.3 ft (2100 w/ 100-yr event)

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## Viewing the Preliminary Maps

- FEMA Map Store – Preliminary FEMA Map Products

<https://hazards.fema.gov/femaportal/prelimdownload/>

- NH GRANIT

<http://www.granit.unh.edu/dfirms/>

- Town/City Offices

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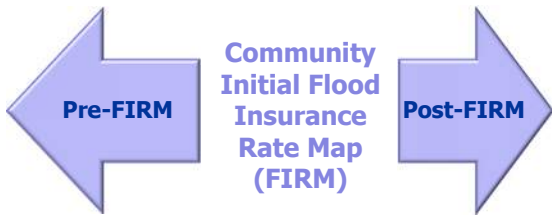
## Biggert-Waters Flood Insurance Reform Act of 2012

- Passed by Congress on July 6, 2012
- Authorized NFIP for 5 years (2017)
- Purpose is to make the NFIP more financially stable
- Requires changes to how some structures are rated (Section 205) and eliminates grandfathering (Section 207)
- Congress just passed legislation that will change everything – at some point!

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## Is a Structure Pre-FIRM or Post-FIRM?



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## Is a Structure Pre-FIRM or Post-FIRM?

Federal Emergency Management Agency  
Community Status Book Report  
NEW HAMPSHIRE  
Communities Participating in the National Flood Program

CID	Community Name	County	Init FIRM Identified	Init FIRM Identified	Curr Eff Map Date	Reg-Emer Date	Tribal
330110#	CONCORD, CITY OF	MERRIMACK COUNTY	06/02/74	03/04/80	04/19/10	03/04/80	No

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### Sample Rating Factors **BEFORE** BW-12

← Pre-FIRM Community Initial FIRM Post-FIRM →

Pre-FIRM Structures (Discounted Rate)	Post-FIRM Structures (Full-Risk Rate)
Year built or Substantially Improved	
Flood Zone	
Amount of Coverage	
Amount of Deductible	
FEMA Elevation Certificate <b>NOT</b> required	FEMA Elevation Certificate required
Basement or enclosure	Base Flood Elevation Lowest Floor Elevation

OEP 31

### NFIP Rating Examples: The Impact of Loss of Subsidies

OEP FEMA

### Sample Rating Factors **AFTER** BW-12

← Pre-FIRM Community Initial FIRM Post-FIRM →

Certain Pre-FIRM Structures (Full-Risk Rate)	Post-FIRM Structures (Full-Risk Rate)
Year built or Substantially Improved	
Flood Zone	
Amount of Coverage	
Amount of Deductible	
Elevation Certificate <b>REQUIRED</b>	Elevation Certificate required
Base Flood Elevation Lowest Floor Elevation	Base Flood Elevation Lowest Floor Elevation

OEP 33

### BW-12 Impact on Pre-FIRM Policies

Pre-FIRM Post-FIRM

Existing Policies

New Policies

OEP 34

### Summary for **Existing** Policies Pre-FIRM Structure in Floodplain

Structure	Policy	Result
Effective Jan 1, 2013 Non-Primary Residence	Policy <b>before</b> July 6, 2012	25% annual increase until full-risk rates reached;
Effective Oct 1, 2013 Business Property Severe Repetitive Loss Cumulative Payments exceeding Fair Market Value		Elevation Certificate will be needed to determine full-risk rate.

OEP 35

### Summary for **Existing** Policies Pre-FIRM Structure in Floodplain

Structure	Policy	Result
Primary Residence	Policy <b>before</b> July 6, 2012	Can continue with the discount rates until property is <b>sold, lapses, or a new policy</b> is needed for any reason; then becomes a new policy

OEP 36

## Summary for **New Policies**

Pre-FIRM Structure in Floodplain

Structure	Policy	Result
<b>Effective Oct 1, 2013</b> ALL Pre-FIRM Structures	New Policy <b>after</b> July 6, 2012 Lapsed policy	Purchase of new policy will <b>immediately</b> require an Elevation Certificate and full-risk rate; Tentative rates are available for 1 yr.

## Grimm-Waters Homeowner Flood Insurance Affordability Act (GW-HR3370)

- House passed on 03/04/14 and Senate passed on 03/13/14
- Elimination of the full risk rate trigger on new or lapsed policies; given 6-8 months to implement
- Elimination of the “grandfathering provision” - had not yet been implemented
- Continue 25% annual increases for non-residential and non-primary residences
- Up to 18% annual increases for primary residences

## Grimm-Waters Homeowner Flood Insurance Affordability Act (GW-HR3370)

- Refund of excess premium charges for some properties – may take 12-18 months or longer
- Surcharge on ALL policies:
  - \$25/year on primary residence policies, and
  - 250/year on non-residential and non-primary residences
  - all revenue placed in NFIP reserve fund

## Important Points to Know about Grimm-Waters

- Once signed by President – will take time to implement
- Provisional rates are available – may save new buyers from having to obtain an Elevation Certificate during transition
- Not everyone who experienced a large premium increase will necessarily get a refund; if they are eligible - will take time to get it
- Stay tuned for further guidance & information

## Questions?

### Contact Information

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[www.nh.gov/oep/planning/programs/fmp](http://www.nh.gov/oep/planning/programs/fmp)