



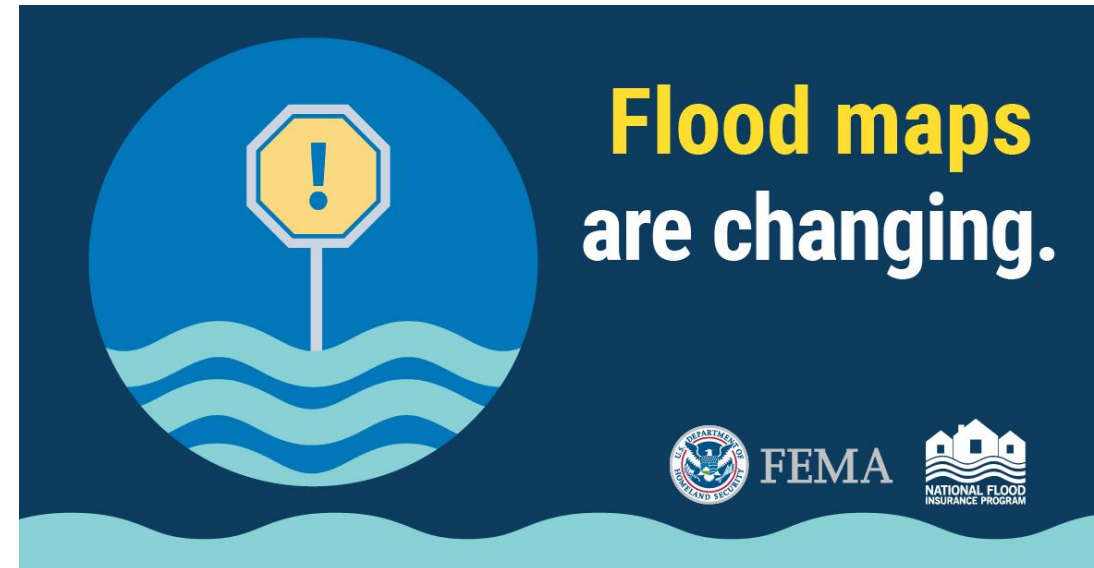
FEMA Flood Maps Are Changing In The Town of Rye

**Kimberly Reed, CFM
Town of Rye NH**

Effective January 29, 2021

Overview

- Updated FEMA flood maps become effective 1/29/2021
- Maps are developed by FEMA for communities in the National Flood Insurance Program (NFIP)
- Changes affect flood insurance rates and requirements for residents and business owners
- Changes affect where community floodplain ordinance applies for new development



What are FEMA Flood Maps and How are They Changing?

FEMA Flood Insurance Rate Maps (FIRMs)

Produced by FEMA and used by:

- Municipal officials to determine **a)** which areas of their community are subject to its floodplain development regulations and **b)** the building requirements that apply for development activity in floodplain areas.
- Lenders to determine which properties require flood insurance as a condition of a mortgage or other loan.
- Insurance agents to determine flood insurance rates for properties.
- The general public to understand flood risk in their area.

The 1% Annual Chance Flood

- National standard used by the NFIP for regulating new development and flood insurance requirements
- Sometimes called the base flood or the “100-year” flood
- The area of the 1% annual chance flood is shown on the maps and is called the **Special Flood Hazard Area (SFHA)**

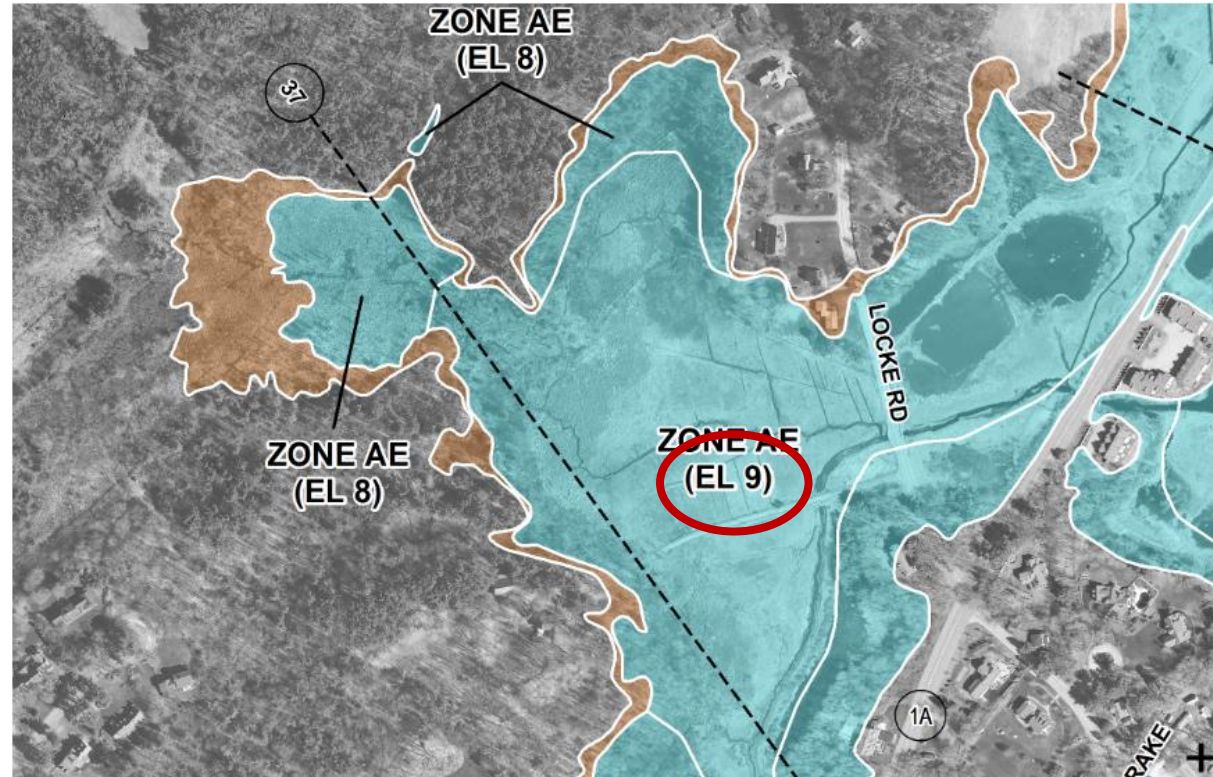
Flood Zones on the Maps

- SFHAs contain all flood zones that start with the letter **A** or **V**. (High risk)
- Areas outside of the SFHA are designated as Zone X. (Low to moderate risk)



Base Flood Elevations (BFEs)

The height above sea level to which flood water would be expected to rise in a 1% annual chance flood event.



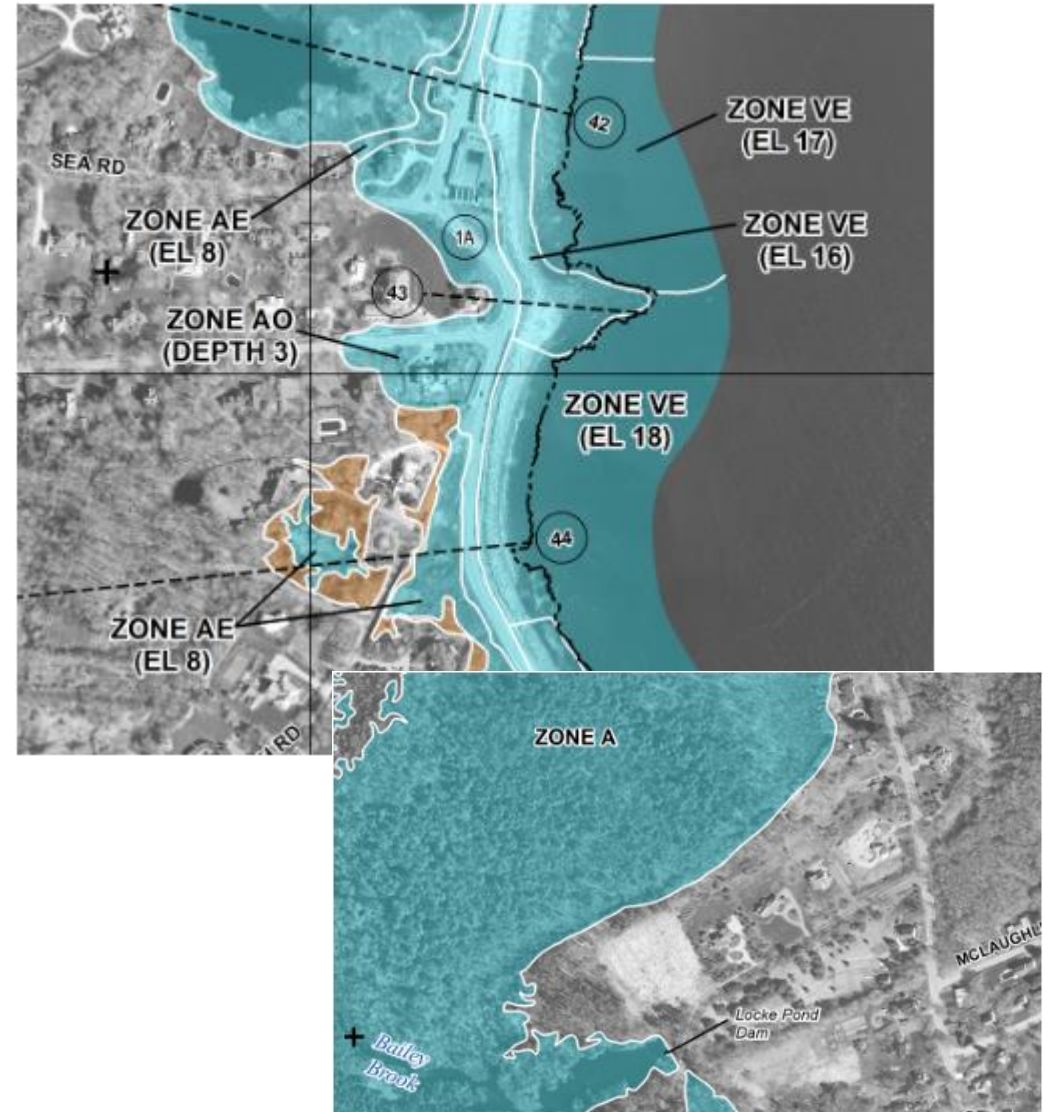
Summary of High-Risk Flood Zones

Zone A: No Base Flood Elevations included

Zone AE: Include Base Flood Elevations

Zone AO: Shallow flooding with a depth between 1 and 3 ft

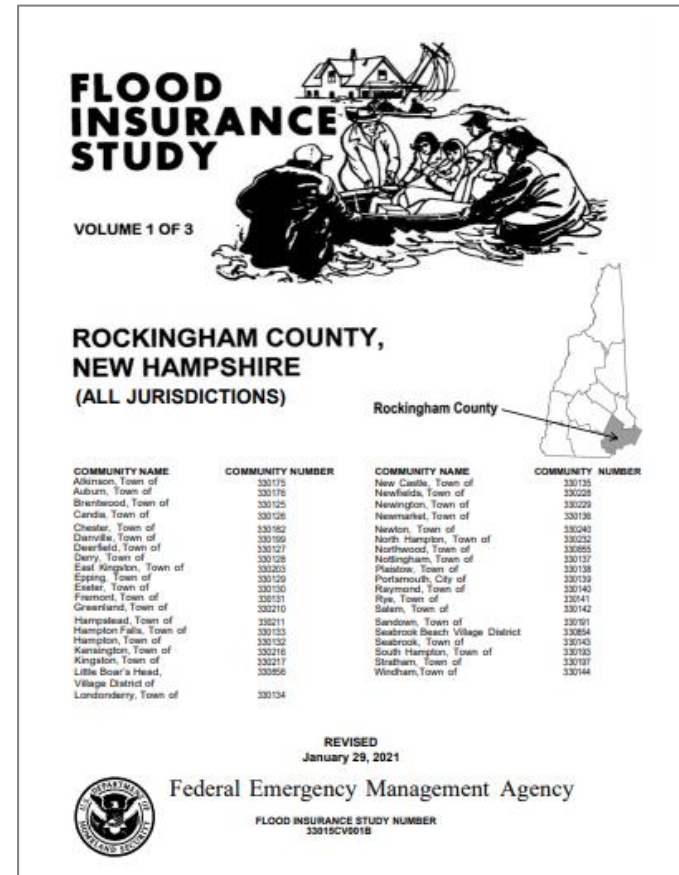
Zone VE: Coastal areas with waves 3 feet or higher expected during 1% annual chance flood; include Base Flood Elevations



The Flood Insurance Study (FIS) Report

A technical report that accompanies the maps that includes:

- Details about the flood analyses used to prepare the maps
- Important tables and charts that include Base Flood Elevation (BFE) information



Rockingham County Coastal Mapping Project

- NH's 1st FEMA Risk MAP project with:
 - Regulatory Products
 - Non-Regulatory Products
- Kickoff and Discovery (scoping) in September 2011
- Community Work Map Meeting in August 2013



Rockingham County Coastal Mapping Project

Coastal NH Project Timeline for Communities in the Rockingham County Project Area



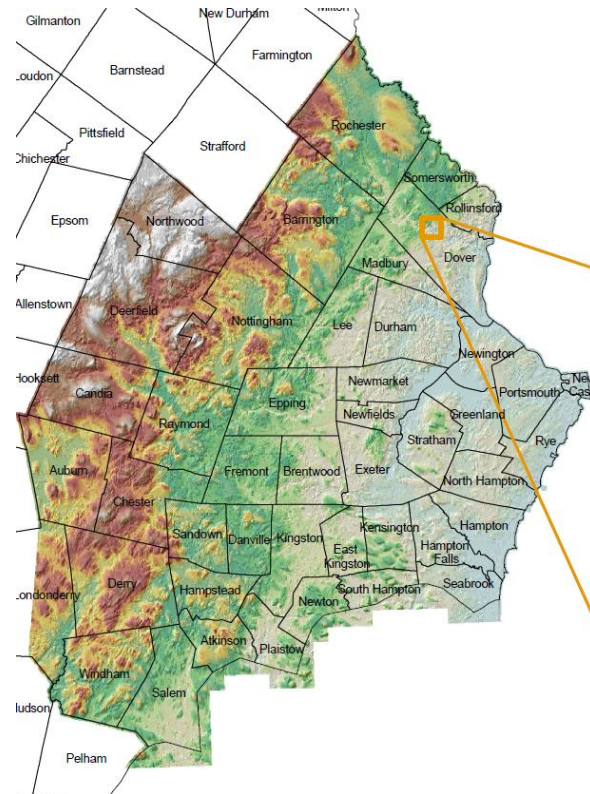
Rockingham County Coastal Mapping Project

Updated flood zone and floodway boundaries and Base Flood Elevations are being added to the maps as a result of updated:

- coastal flood hazard analyses
- riverine flood hazard analyses
- Zone A (approximate) flood hazard analyses
- Topographic information

Rockingham County Coastal Mapping Project

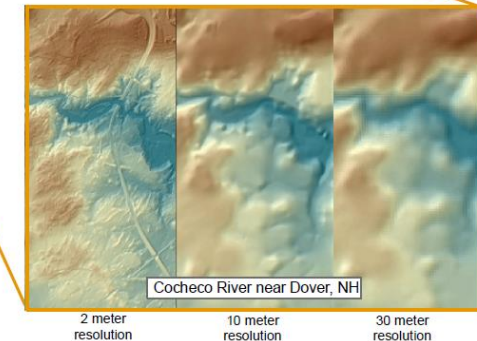
- 2010 1-ft. Orthophotography
- Coastal LiDAR – 2 meter Digital Elevation Model; 30 cm vertical accuracy
- North American Vertical Datum (NAVD 1988)



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, extending over approximately 900 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 (10-meter and 30-meter) available for the rest of New Hampshire.



Study Type

Flooding Source		Study Type:			
		Coastal	Zone A/ Basic Study	Zone AE/ Enhanced Study	Revisions due to updated topographic data
1	Atlantic Ocean	17.7			
2	Piscataqua River				13.1
3	Great Bay shoreline				32.0
4	Squamscott River			0.8	5.0
5	Exeter River			7.53	0.5
6	Lamprey River			4.5	
7	Little River No. 1 (Exeter)				2.3
8	Pickering Brook				1.8
9	Piscassic River				3.4
10	Bellamy River				2.6
11	Cocheco River				2.3
12	College Brook				1.7
13	Oyster River			3.75	
14	Hamel Brook/Longmarsh Brook				1.1
15	Pettee Brook				1.3
16	Winnicut River				3.7
17	Woodman Brook				1.2
Zone A restudies			136.4		
Total		17.7	136.4	16.58	72.0

All distances reported in miles. Distances reflect Coordinated Needs Management Strategy (CNMS) results for the study area.

Municipality	2005 SFHA Data (Acres)	2021 SFHA Data (Acres)	New SFHA Change (Acres)
Greenland	2,727.7	2,369.1	-358.6
Portsmouth	1,749.5	1,534.1	-215.4
Hampton	3,558.8	3,366.2	-192.6
Newington	3,013.9	2,824.6	-189.3
Newmarket	2,183.4	1,999.4	-184.0
Newfields	885.3	714.3	-171.0
North Hampton (includes LBHVD)	1,397.0	1,241.6	-155.4
Exeter	2,076.3	1,934.0	-142.3
Hampton Falls	1,717.1	1,690.0	-27.1
Seabrook (includes SBVD)	2,124.0	2,106.0	-18.0
New Castle	615.5	614.3	-1.2
Stratham	718.4	732.0	13.6
Rye	2,920.2	3,152.6	232.4
Total	25,687.1	24,278.2	-1,408.9

New Flood Zones and Changes in Zone VE

Municipality	New Flood Zone	Acres
New Castle	Zone AO	0.8
Newington	Zone A	2
Newmarket	Zone AE with Floodway	21.1

Municipality	Change in Zone VE (Acres)
Hampton	+ 45
New Castle	- 16.5
North Hampton/Little Boar's Head Village District	+ 14.8
Rye	+ 52.8
Seabrook/Seabrook Beach Village District	+ 35.2

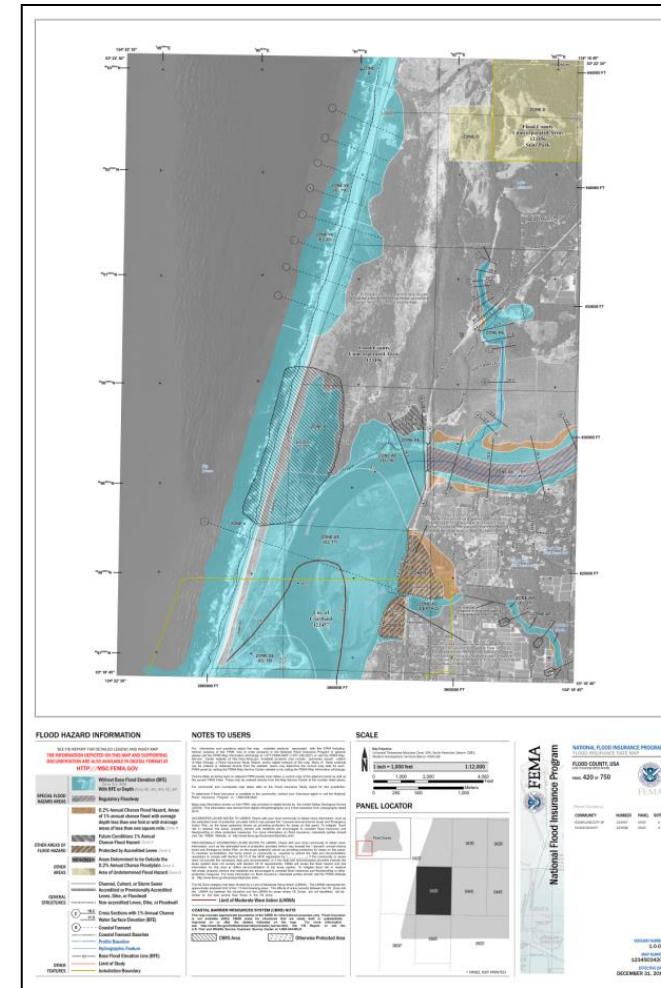
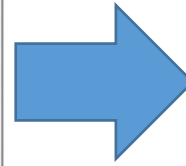
Significant Areas of Change in Rye will be:

Along Ocean Blvd where the VE zone is increased and the addition of the Limit of Moderate Wave Action (LiMWA) where the areas of limited wave action 1.5' to 3' in height. Both these areas FEMA recommends elevation on piles.

NH Flood Hazards Viewer:

<https://nhosi.maps.arcgis.com/apps/webappviewer/index.html?id=a932e48a62e74f71bf17fd6aed84af88>

Regulatory Products - FIRM



Regulatory Products – FIS Report

FLOOD INSURANCE STUDY

VOLUME 1 OF 3

ROCKINGHAM COUNTY, NEW HAMPSHIRE (ALL JURISDICTIONS)

COMMUNITY NAME	COMMUNITY NUMBER
Atkinson, Town of	330175
Auburn, Town of	330176
Brentwood, Town of	330125
Candia, Town of	330126
Chester, Town of	330182
Danville, Town of	330199
Deerfield, Town of	330127
Derry, Town of	330128
East Kingston, Town of	330203
Epping, Town of	330129
Exeter, Town of	330190
Fremont, Town of	330131
Greenland, Town of	330210
Hampstead, Town of	330211
Hampton Falls, Town of	330133
Hampton, Town of	330132
Kensington, Town of	330216
Kingston, Town of	330217
Little Boar's Head, Village District of	330856
Londonderry, Town of	330134

FLOOD INSURANCE STUDY

VOLUME 2 OF 3

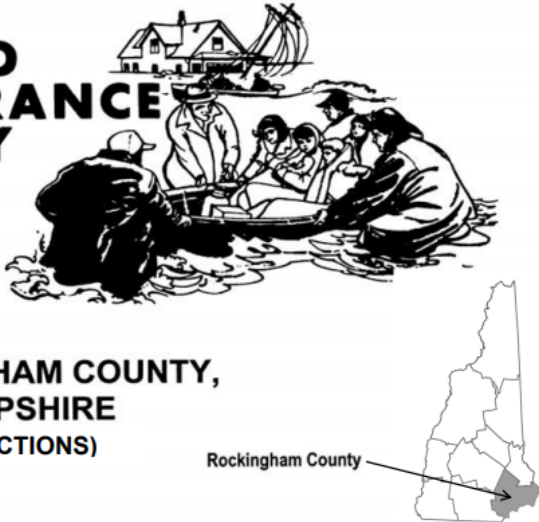
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Derry, Town of	330128
East Kingston, Town of	330203
Epping, Town of	330129
Exeter, Town of	330190
Fremont, Town of	330131
Greenland, Town of	330210
Hampstead, Town of	330211
Hampton Falls, Town of	330133
Hampton, Town of	330132
Kensington, Town of	330216
Kingston, Town of	330217
Little Boar's Head, Village District of	330856
Londonderry, Town of	330134

FLOOD INSURANCE STUDY

VOLUME 3 OF 3

ROCKINGHAM COUNTY, NEW HAMPSHIRE (ALL JURISDICTIONS)



COMMUNITY NAME	COMMUNITY NUMBER
New Castle, Town of	330135
Newfields, Town of	330228
Newington, Town of	330229
Newmarket, Town of	330136
Newton, Town of	330240
North Hampton, Town of	330232
Northwood, Town of	330855
Nottingham, Town of	330137
Plaistow, Town of	330138
Portsmouth, City of	330139
Raymond, Town of	330140
Rye, Town of	330141
Salem, Town of	330142
Sandown, Town of	330191
Seabrook Beach Village District	330854
Seabrook, Town of	330143
South Hampton, Town of	330193
Stratham, Town of	330197
Windham, Town of	330144

REVISÉ
January 29, 2021

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
33015CV003B

New Legend and Panel Locator

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
[HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, X, AE</i>
		With BFE or Depth <i>Zone AE, AD, AH, VE, AR</i>
OTHER AREAS OF FLOOD HAZARD		Regulatory Floodway
		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
		Area of Minimal Flood Hazard <i>Zone X</i>
OTHER AREAS		Area of Undetermined Flood Hazard <i>Zone D</i>
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
	Base Flood Elevation Line (BFE)	
	Limit of Study	
	Jurisdiction Boundary	

NOTES TO USERS

For information and questions about the Flood Insurance Rate Map (FIRM), available products associated with the FIRM, including historic versions, the current map data for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP), in general, please call the FEMA Mapping and Insurance Exchange at 1-877-FEMA-MAP (1-877-366-2827) or visit the FEMA Flood Map Service Center website at <https://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map data for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Mapping and Insurance Exchange.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and route/mile map dates refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-635-6520.

State map information shown on this FIRM was provided in digital format by the United States Geological Survey (USGS). This information was derived from digital orthophotography at a 1-foot resolution from photography dated 2013.

SCALE

Map Projection:
NAD 1983 StatePlane New Hampshire FIPS 2600 Feet
Western Hemisphere, Vertical Datum: NAVD 88

1 inch = 1,000 feet 1:12,000

0 1,000 2,000 4,000 Feet

0 260 520 1,040 Meters

PANEL LOCATOR

*PANEL NOT PRINTED

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

ROCKINGHAM COUNTY, NEW HAMPSHIRE

(All Jurisdictions)

PANEL 265 of 681

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
GREENLAND, TOWN OF	330210	0265	F
NEWINGTON, TOWN OF	330229	0265	F
NORTH HAMPTON, TOWN OF	330232	0265	F
PORSMOUTH, CITY OF	330139	0265	F
RYE, TOWN OF	330141	0265	F
STRATHAM, TOWN OF	330197	0265	F

VERSION NUMBER
2.3.2.1
MAP NUMBER
33015C0265F
MAP REVISED
January 29, 2021

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet usually areas of ponding; Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet usually sheet flow on sloping terrain; average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Area determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- - - Zone D boundary
- CBRS and OPA boundary
- ← Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 573 Base Flood Elevation line and value; elevation in feet*
- (EL. 887) Base Flood Elevation value where uniform within zone; elevation in feet*




*Referenced to the National Geodetic Vertical Datum of 1929

- (A) — (A) Cross section line
- (23) - - - (23) Traversed line





FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT
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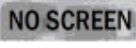

SPECIAL FLOOD HAZARD AREAS

-  Without Base Flood Elevation (BFE)
Zone A, V, A99
-  With BFE or Depth *Zone AE, AO, AH, VE, AR*
-  Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

-  0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
-  Future Conditions 1% Annual Chance Flood Hazard *Zone X*
-  Area with Reduced Flood Risk due to Levee See Notes. *Zone X*
-  Area with Flood Risk due to Levee *Zone D*

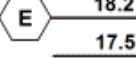
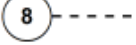
OTHER AREAS

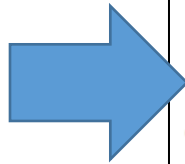
-  Area of Minimal Flood Hazard *Zone X*
-  Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES

-  Cross Sections with 1% Annual Chance Water Surface Elevation
-  Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- ~~~~~ 573 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary



NFIP

PANEL 0265 E

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP
ROCKINGHAM COUNTY,
NEW HAMPSHIRE
(ALL JURISDICTIONS)

PANEL 265 OF 681

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

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RYE, TOWN OF	330141	0265	E
STRATHAM, TOWN OF	330197	0265	E

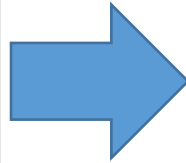
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



MAP NUMBER
33015C0265E

EFFECTIVE DATE
MAY 17, 2005

Federal Emergency Management Agency



FEMA



National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

ROCKINGHAM COUNTY, NEW HAMPSHIRE
(All Jurisdictions)



FEMA

PANEL 265 OF 681

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STRATHAM, TOWN OF	330197	0265	F



VERSION NUMBER
2.3.2.1

MAP NUMBER
33015C0265F

MAP REVISED
January 29, 2021

Non-Regulatory Products



**Flood Risk
Database
09/15/2016**



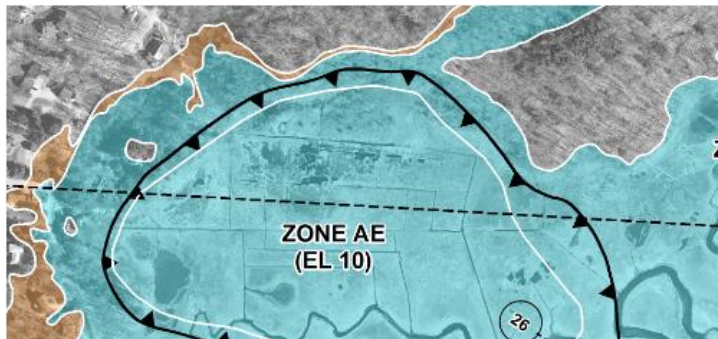
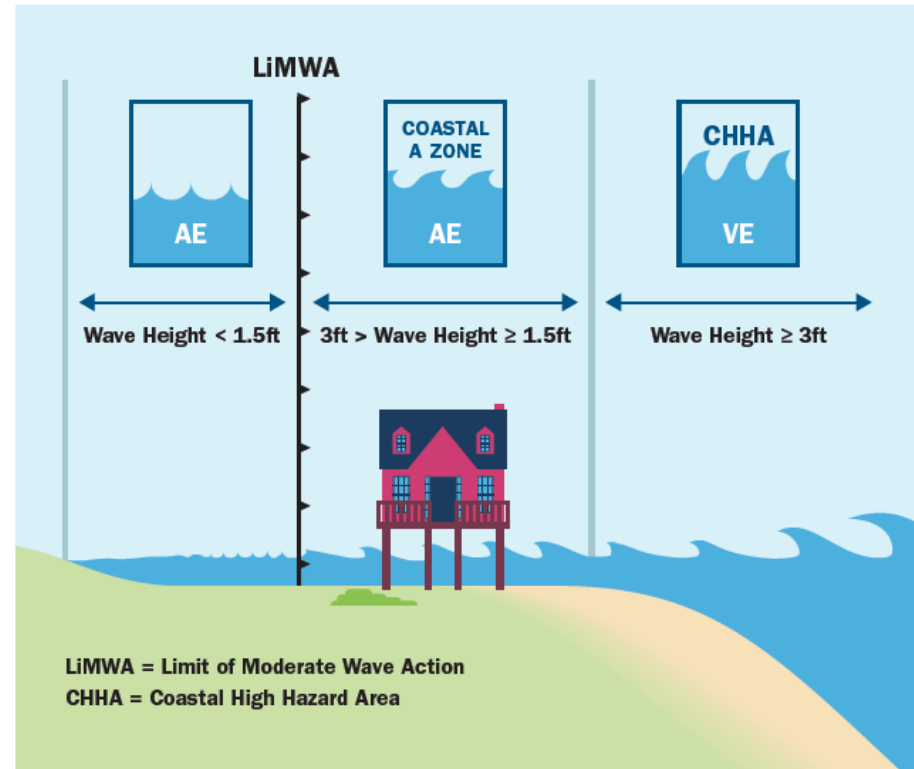
**Flood Risk
Report
09/15/2016**



**Flood Risk
Map
09/15/2016**

Limit of Moderate Wave Action (LiMWA)

- The inland limit of the area expected to receive 1.5 foot or higher breaking waves during a 1% annual chance flood.
- Special building requirements apply per current State Building Code (2015 IRC and IBC).



How Will the Maps Affect Letters of Map Amendment (LOMAs)

- All LOMAs are re-evaluated based on the changes to flood zones and Base Flood Elevations
- Summary of Map Actions (SOMA) shows results of this evaluation (copies available upon request)
- All LOMAs that will remain valid will be included on a Revalidation Letter sent by FEMA to communities
- LOMAs that will be superseded will require flood insurance moving forward – secure a policy as soon as possible for the best cost options.

How to Access the New Flood Maps and FIS Report

- Digital map panels and FIS report, GIS data, and non-regulatory products available on FEMA Map Service Center (MSC) website (msc.fema.gov) – under ‘**Pending**’ Category
- [NH Flood Hazards Viewer](http://bit.ly/368IBfJ) (View both existing effective and new maps together) (<http://bit.ly/368IBfJ>)
- FEMA [National Flood Hazard Layer Viewer](#) (Once maps are effective)
- Paper copies will be provided to communities by FEMA closer to the new effective date

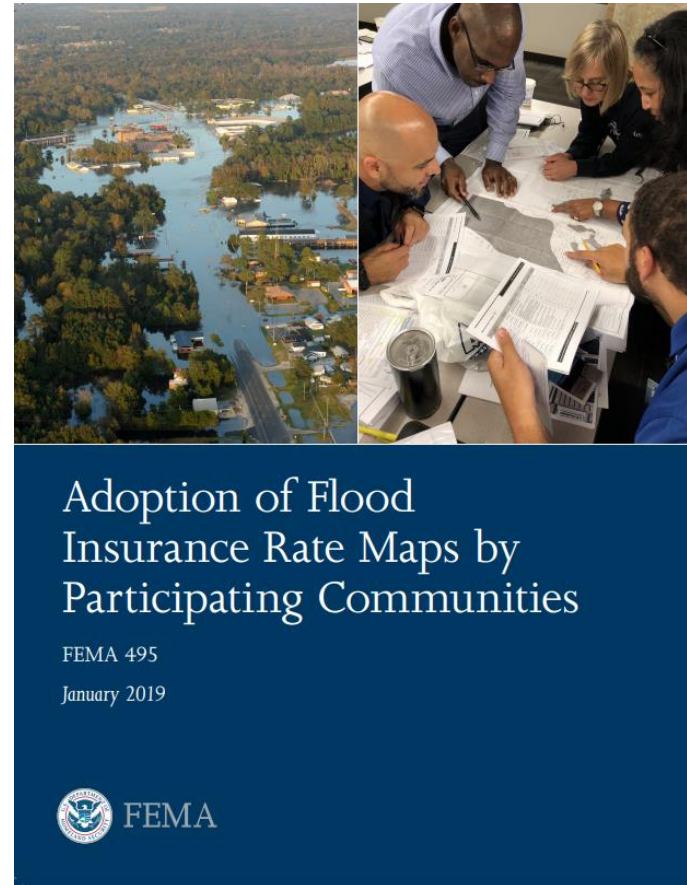
**What do the Map
Changes Mean for
Our Community?**

Community Floodplain Regulations

- **The Town of Rye** enforces a floodplain management ordinance that helps to protect lives and property from future floods.
- Proposed development in high-risk areas, as shown on the flood maps, must meet applicable requirements in the ordinance.
- New flood zones, floodways, and base flood elevations on new maps mean new areas and/or data in the community to enforce regulations.

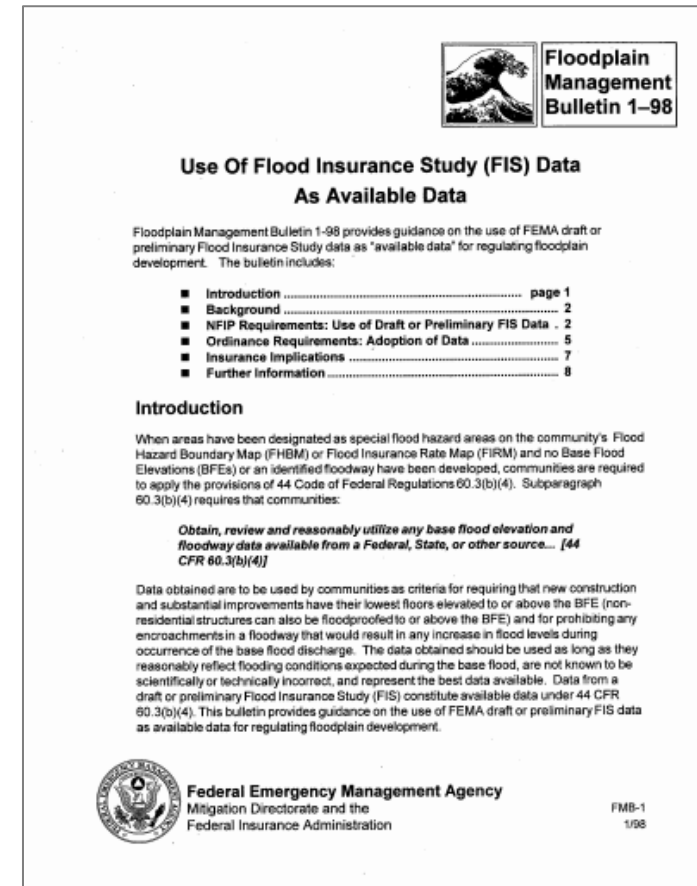
Community Floodplain Regulations and Map Adoption

- When FEMA updates a community's FIRM and FIS report with new or revised flood hazard information, community must update its floodplain regulations to reference the date of the new maps and report before the new effective date (**1/29/2021**).
- Community's floodplain regulations must be NFIP compliant by the map effective date.



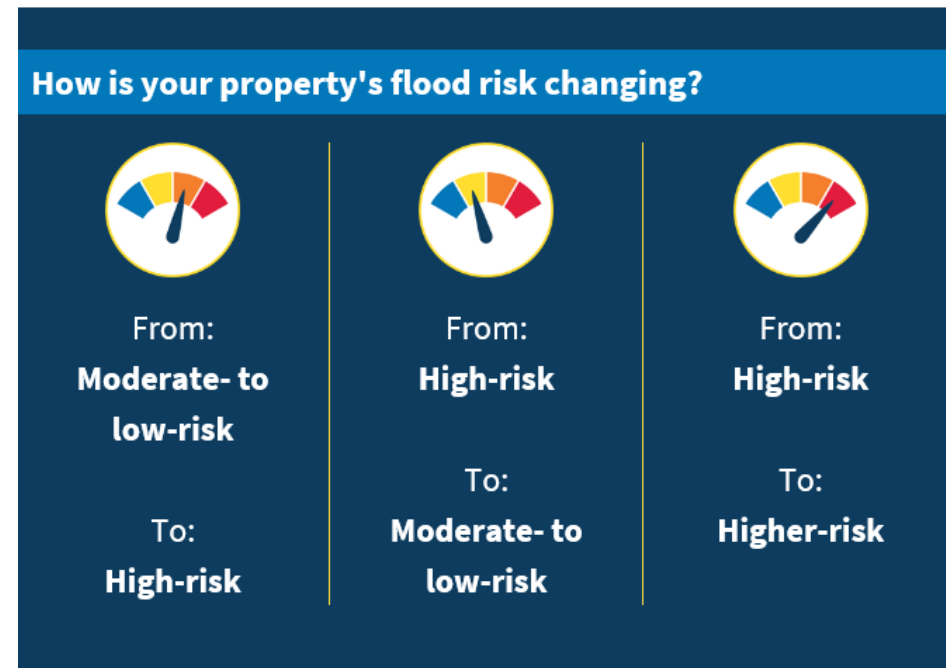
Use of New Flood Map Data Prior to 1/29/2021

- Communities are not required to use the new maps for floodplain development requirements prior to effective date
- FEMA encourages communities to reasonably utilize this information in instances where BFEs increase and floodways are revised to ensure that the health, safety, and property of their citizens are protected.



How Will the New Maps Affect Flood Insurance for Residents and Businesses?

- Dependent on current and new flood zone for a property
- Lower cost options are available depending on situation
- Contact insurance agent for details

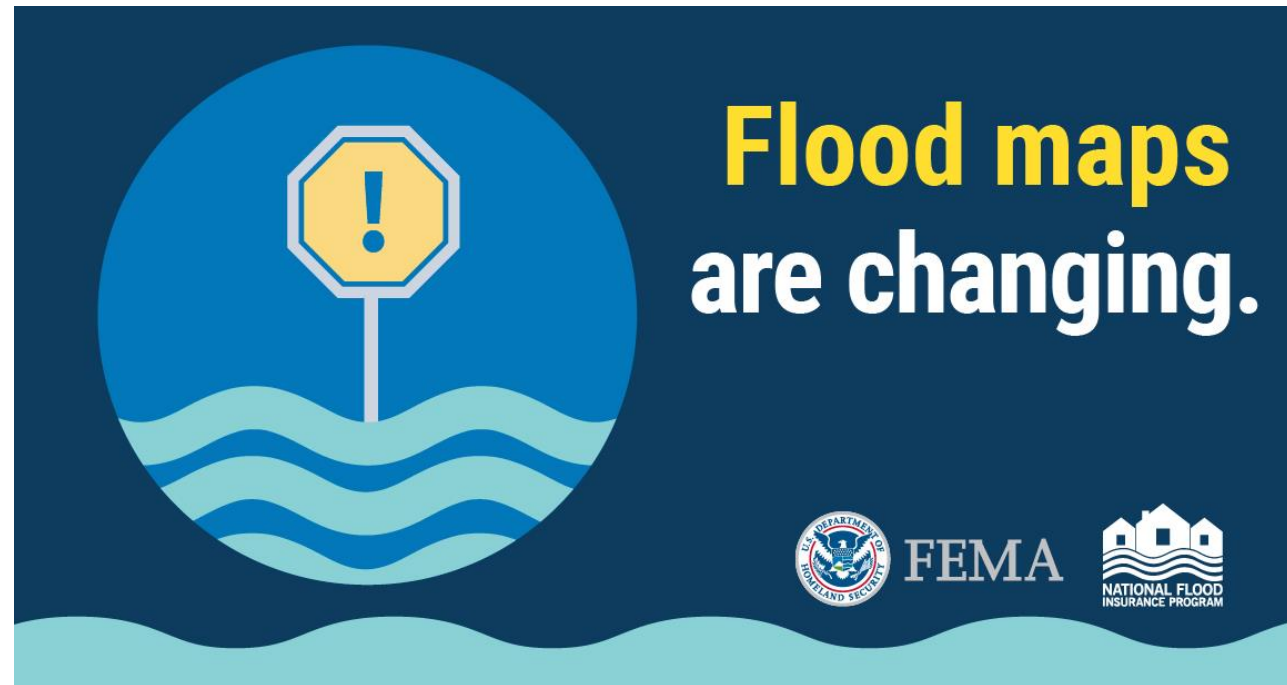


Flood Insurance is Always a Good Idea!

- Flood insurance is highly encouraged, even when not required.
 - Just 1 inch of floodwater can cause as much as \$25,000 to a home.
 - 20% of flood insurance claims happen outside of high-risk flood zone
 - Low cost options available in many cases for both property owners and renters
- Contact your insurance agent for details or visit **floodsmart.gov** for general information.



Questions?



Helpful Resources:

- **FEMA Mapping & Insurance eXchange helpline (1-877-336-2627)**
 - For general questions about the flood maps, insurance, LOMAs
- ***Map Changes and Flood Insurance* brochure <https://rb.gy/8akfie>**
 - General info. about how flood map changes affect insurance
- **FloodSmart.gov**
 - General info. about flood insurance and how map changes affect insurance
- **NH Office of Strategic Initiatives**
 - **Coastal Mapping Project webpage:**
www.nh.gov/osi/planning/programs/fmp/coastal-mapping-project/rockingham-county.htm
 - **NH Flood Hazards Viewer:** <http://bit.ly/368IBfJ>
 - **Rye Flood Management Website** <https://www.town.rye.nh.us/flood-management>

Contact Information

Kimberly M. Reed, CFM

Planning & Zoning Administrator

10 Central Road

Rye NH 03870

PH: (603) 379-8081

E-mail: kreed@town.rye.nh.us

<http://www.town.rye.nh.us/Pages/index>

Milon C. Marsden Jr. CFM

Building Inspector

Town of Rye NH

10 Central Road

603-964-9800

Jennifer Gilbert

Senior Planner | Floodplain Management Program Coordinator

New Hampshire Office of Strategic Initiatives (OSI) – Division of Planning

107 Pleasant Street, Johnson Hall, 3rd Floor, Concord, NH 03301

Main - 603-271-2155 | Direct - 603-271-1762 | jennifer.gilbert@osi.nh.gov

www.nh.gov/osi/planning/