

# Rhode Island Floodplain Mapping Tool Tutorial



Rhode Island Emergency Management Agency  
Floodplain Mapping Tutorial

# About the Tool

Floods are among the most frequent and costly natural disasters in terms of human hardship and economic loss. Seventy-five percent of federal disaster declarations are related to flooding. Flooding in Rhode Island can result from a variety of situations, including spring snow melt combined with heavy rains, coastal storms, "nor'easters", tropical storms or hurricanes, and the very dangerous potential of dam breeches.

The Rhode Island Floodplain Mapping Tool is provided for reference only. The Tool is designed to provide users with an easily accessible online resource by which to make informed decisions about the flood risk for a specific area or property. The Tool provides the user with an approximate flood zone determination relative to a flood hazard area. The floodplains shown on this Tool are delineated on the Federal Emergency Management Agency (FEMA) historic, preliminary, or effective Flood Insurance Rate Maps (FIRM). For inquiries relating to flood insurance or regulations, please refer to the published effective FIRM for your area of concern. The effective FIRM is produced, maintained and published by FEMA and not by the State of Rhode Island. Community specific effective map panels for Rhode Island are available on the FEMA Map Service Center.

Please review the following tutorial for more information on how to maximize this resource's potential. Updates will be made to this program over the coming months and RIEMA encourages each user to return to learn about the additional features.



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## Additional Topics

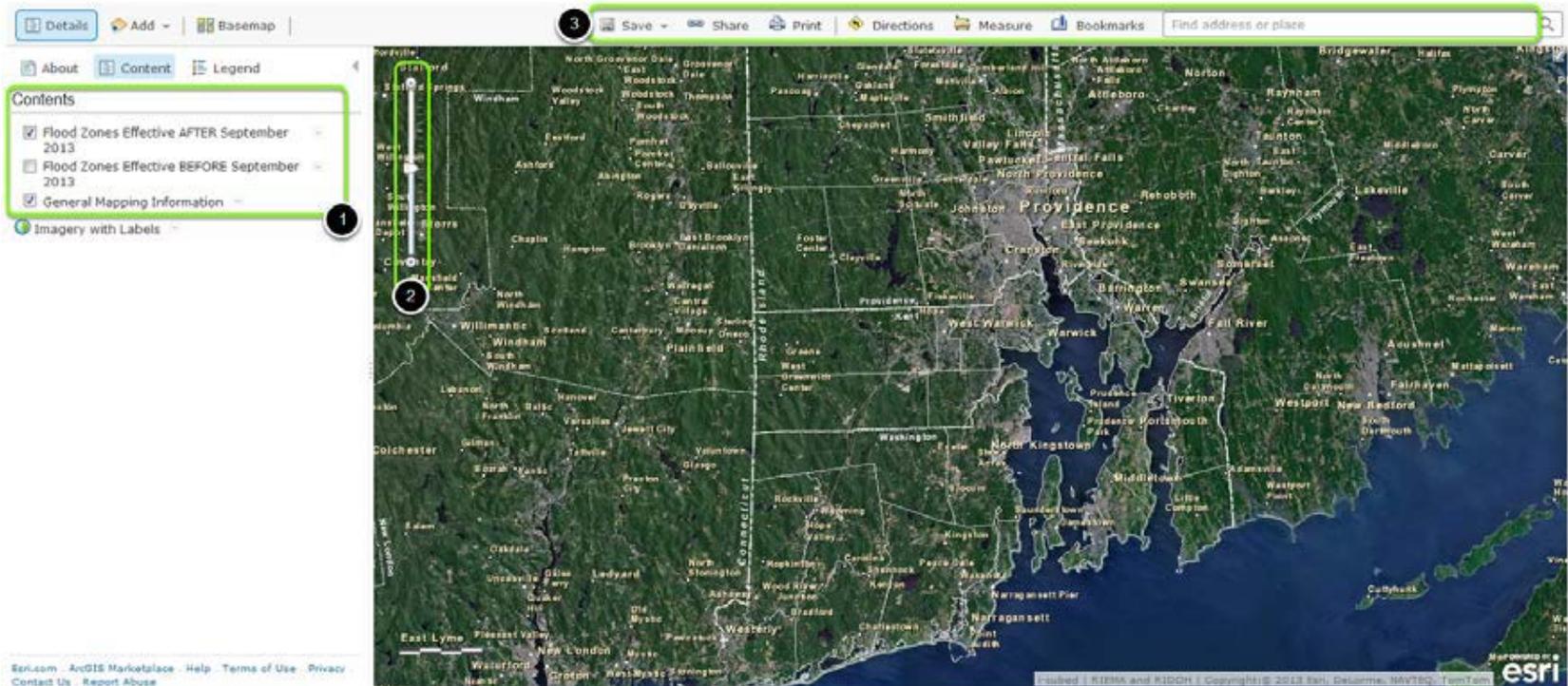
- [Property Only Located in Flood Zone](#)
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# Contents Display

The numerical values given to the default map details will correspond to the description order of this guide.

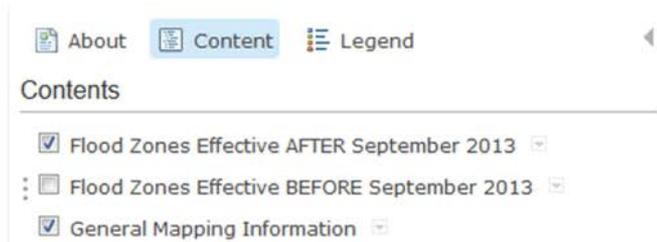
1. Contents
2. Scale
3. Toolbar



# Contents: Default Group and Sub-Layers

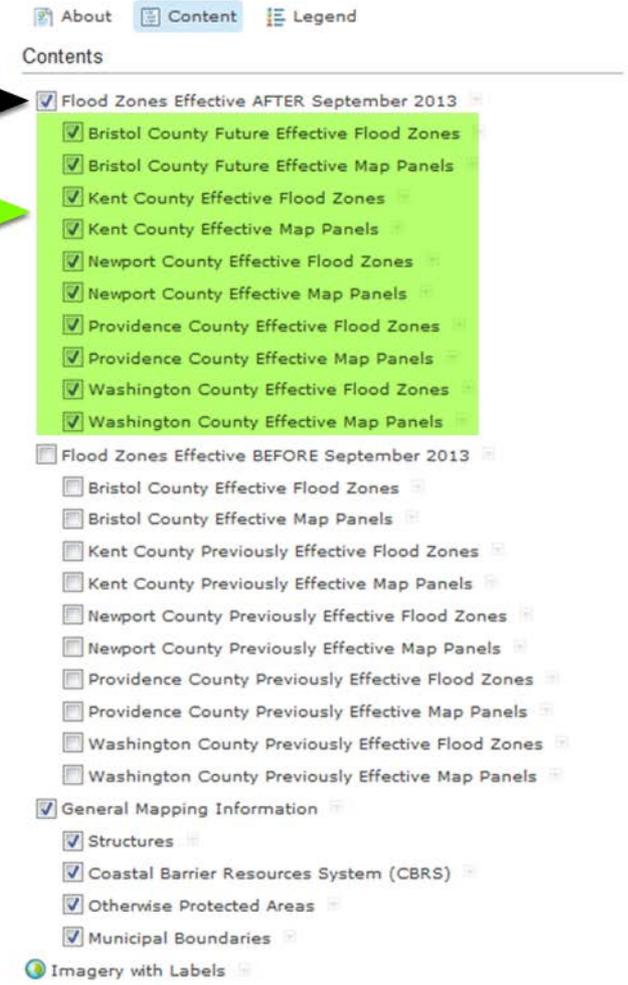
Layer are displayed by clicking directly on a Group layer's text. Click the Group layer to display the sub-layers (highlighted in green).

Check on the corresponding box(es) to **activate** a Group layer or sub-layer on the map.



This is a Group layer

These are sub-layers

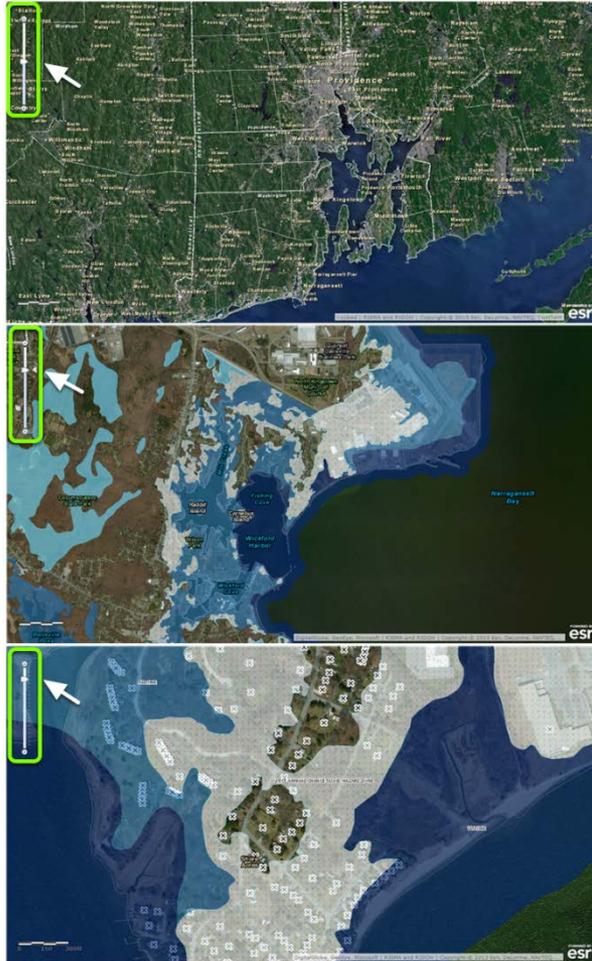


If the Group layer check box is not activated, the sub layers will not display even if the desired county boxes are checked. **For the most complete result**, both the flood zone and map panel boxes for a county should be activated.



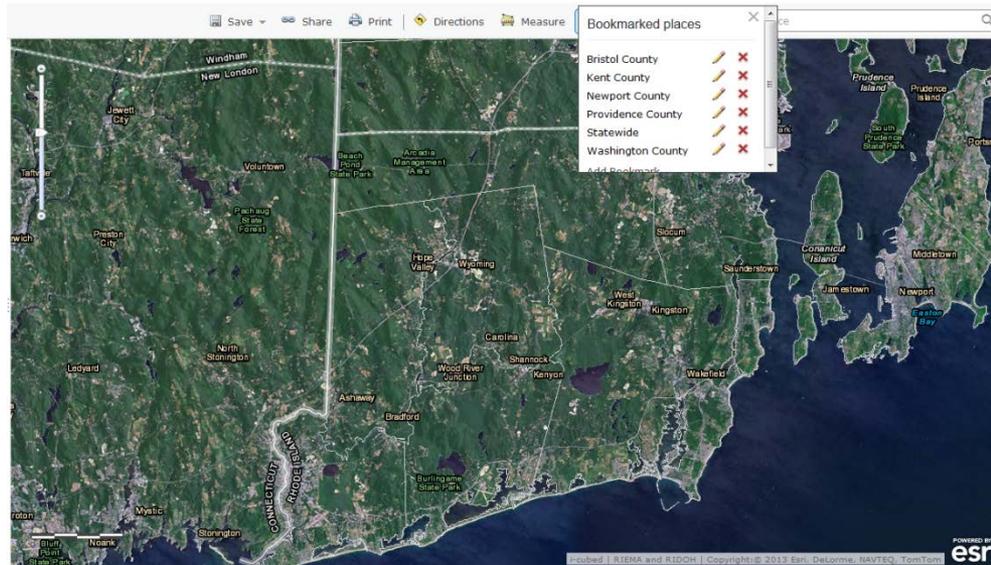
# Scale: Extent Changes

Click and move the scale tab to change the Tool's extent



# Toolbar

**BOOKMARK:** Use the Bookmark option in the Toolbar to change the map extent instantly.



## ADDRESS LOCATOR:

As text is entered into the Address Locator, a drop down box will appear and provide location options.



# DEMONSTRATION

*Step-by-step tutorial on making an approximate  
flood zone determination*



# Step 1: Set up Contents for Mapping

Necessary Groups and sub-layers were checked for this demonstration of 35 Ocean Road Narragansett, Rhode Island. The General Mapping Information Group and sub-layers were kept active as in the default.

Both the Content and Legend are displayed for reference.

The screenshot displays the 'Contents' and 'Legend' panels of a mapping application. The 'Contents' panel is on the left, and the 'Legend' panel is on the right. The 'Contents' panel has a search bar and a list of layers. The 'Legend' panel shows the symbols for the selected layers.

**Contents Panel:**

- Flood Zones Effective AFTER September 2013
  - Bristol County Future Effective Flood Zones
  - Bristol County Future Effective Map Panels
  - Kent County Effective Flood Zones
  - Kent County Effective Map Panels
  - Newport County Effective Flood Zones
  - Newport County Effective Map Panels
  - Providence County Effective Flood Zones
  - Providence County Effective Map Panels
- Flood Zones Effective BEFORE September 2013
  - Bristol County Effective Flood Zones
  - Bristol County Effective Map Panels
  - Kent County Previously Effective Flood Zones
  - Kent County Previously Effective Map Panels
  - Newport County Previously Effective Flood Zones
  - Newport County Previously Effective Map Panels
  - Providence County Previously Effective Flood Zones
  - Providence County Previously Effective Map Panels
- Washington County Effective Flood Zones
- Washington County Effective Map Panels
- Washington County Previously Effective Flood Zones
- Washington County Previously Effective Map Panels
- General Mapping Information
  - Structures
  - Coastal Barrier Resources System (CBRS)
  - Otherwise Protected Areas
  - Municipal Boundaries
- Imagery with Labels

**Legend Panel:**

- Flood Zones Effective AFTER September 2013**
  - Washington County Effective Flood Zones
    - 0.2 Percent Annual Chance Flood Zone
    - A
    - AE
    - AH
    - AO
    - VE
- Flood Zones Effective BEFORE September 2013**
  - Washington County Previously Effective Flood Zones
    - 0.2 Percent Annual Chance Flood Zone
    - A
    - AE
    - AH
    - AO
    - VE
- General Mapping Information**
  - Structures
    - X
  - Coastal Barrier Resources System (CBRS)
    - CBRS Unit
  - Otherwise Protected Areas
    - OPA Unit



# Step 1 Continued: Explanation of Flood Zones

[About](#)
[Content](#)
[Legend](#)

### Legend

**Flood Zones Effective AFTER September 2013**

Washington County Effective Flood Zones

-  0.2 Percent Annual Chance Flood Zone
-  A
-  AE
-  AH
-  AO
-  VE

**Flood Zones Effective BEFORE September 2013**

Washington County Previously Effective Flood Zones

-  0.2 Percent Annual Chance Flood Zone
-  A
-  AE
-  AH
-  AO
-  VE

**General Mapping Information**

Structures  
X

Coastal Barrier Resources System (CBRS)

-  CBRS Unit

Otherwise Protected Areas

-  OPA Unit

ZONE	DESCRIPTION
0.2%	Areas of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods. Are also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
A	Areas with 1% annual chance of flooding and 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or BFEs are shown within these zones.
AE	The base floodplain where base flood elevations are provided.
AH	Areas with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Average flood depths derived from detailed analyses are shown at selected intervals within these zones.
AO	River or stream flood hazard areas, and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Average flood depths derived from detailed analyses are shown within these zones.
VE	Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. BFEs derived from detailed analyses are shown at selected intervals within these zones.



## Step 2: Input Address

**Insert desired address into the Address Locator in the Toolbar and hit ENTER.**

*The demonstration address is 35 Ocean Road Narragansett, RI 02882.*



A screenshot of a search interface showing a dropdown menu with the following text:

- 35 Ocean Road, Narra
- 35 Ocean Rd, Narragansett Town Of, RI, 02882 USA
- 35 Ocean Rd, Narragansett, RI, 02882 USA
- Ocean Road Historic District, Narragansett Pier, Rhode Islan...

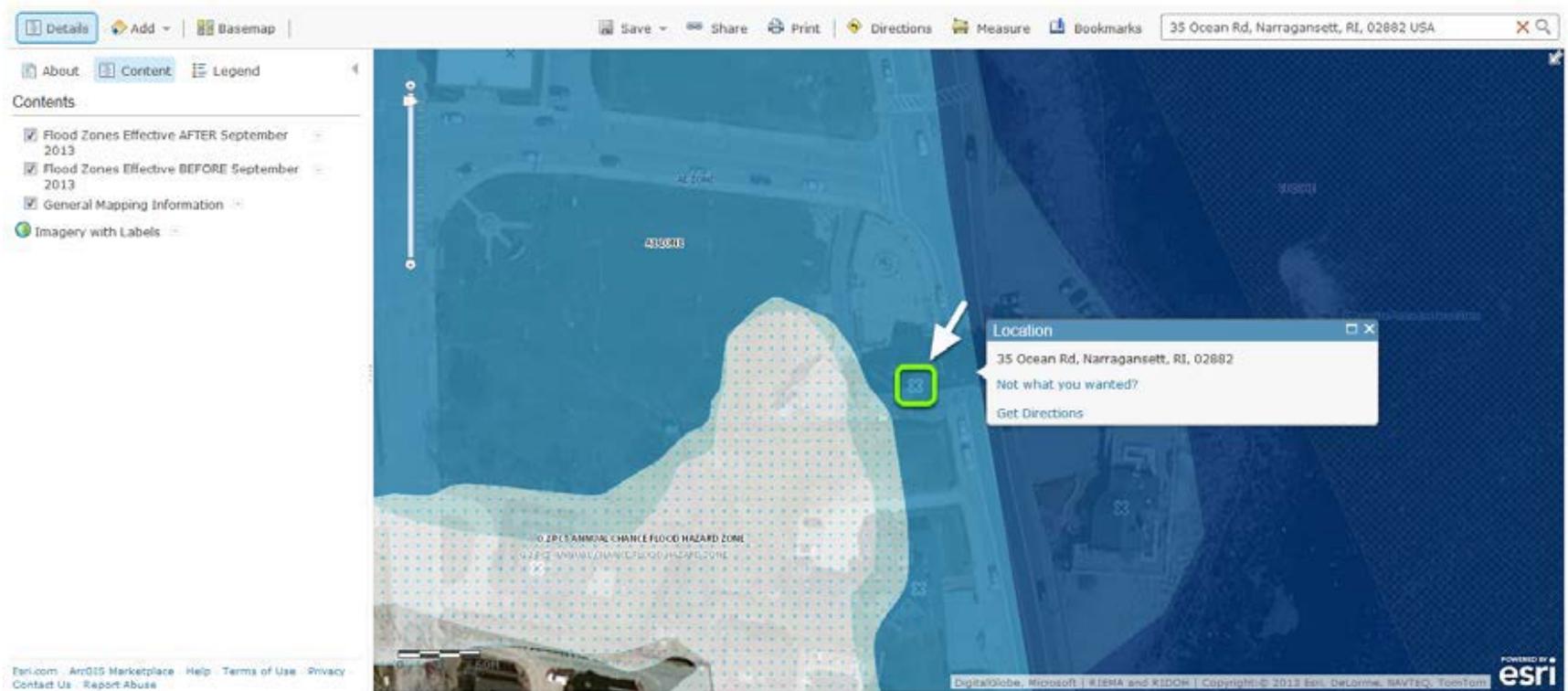
The first item is highlighted. In the top right corner of the dropdown, there is a red 'X' icon and a magnifying glass icon.



# Step 3: Locate Structure

Once the address is located, a pop-up will display the approximate location. Please note, *pop-up will not always* be displayed directly on the corresponding structure.

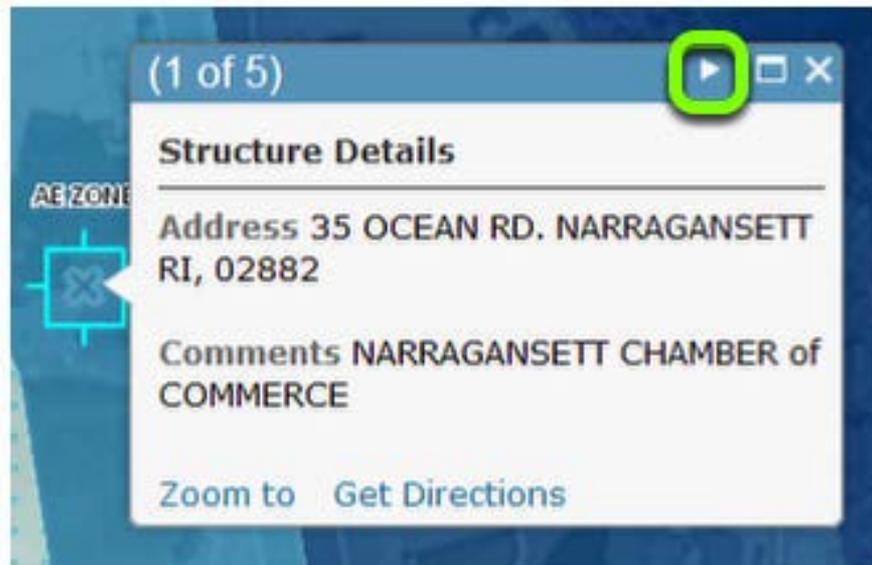
*Click directly on the 'X' outlined in green (demonstration only) for further information about the specific site.*



## Step 4: Structure Details

Click directly on the 'X' to prompt a pop-up showing the specific address and distinguishing building features (if available).

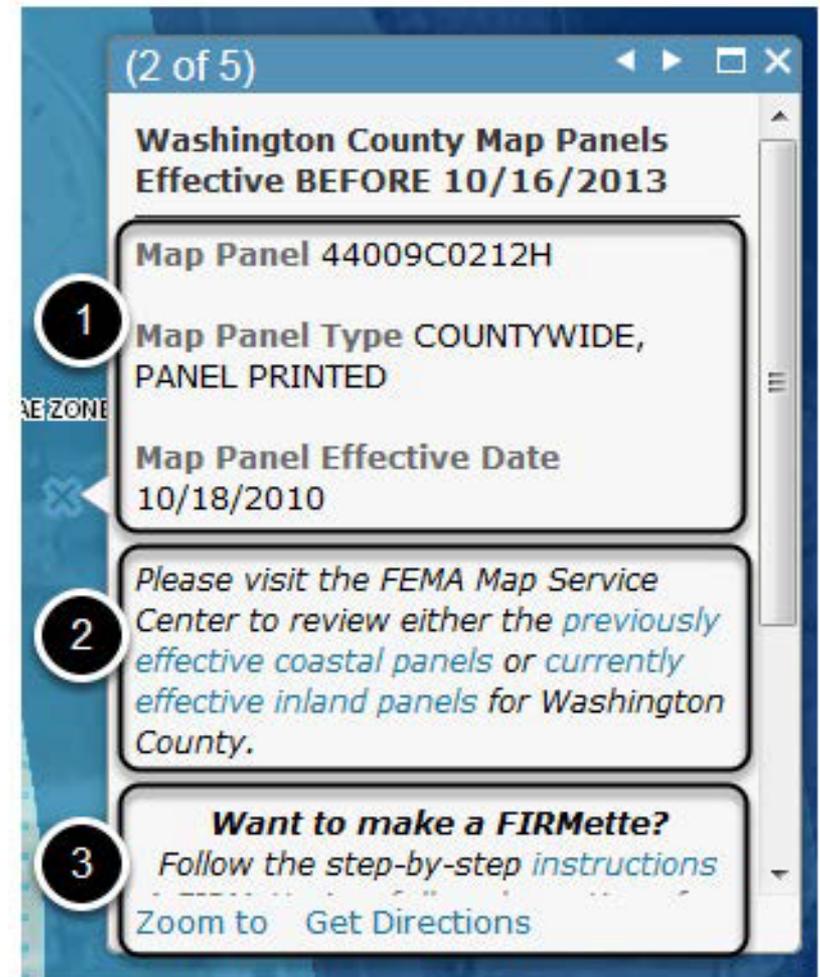
*Click the arrow outlined in green (demonstration only) to show the next display.*



# Step 4 Cont.: Previously Effective Map Panel Details

Click the forward arrow to display information about the **Washington County Map Panels Effective Before 10/16/2013**.

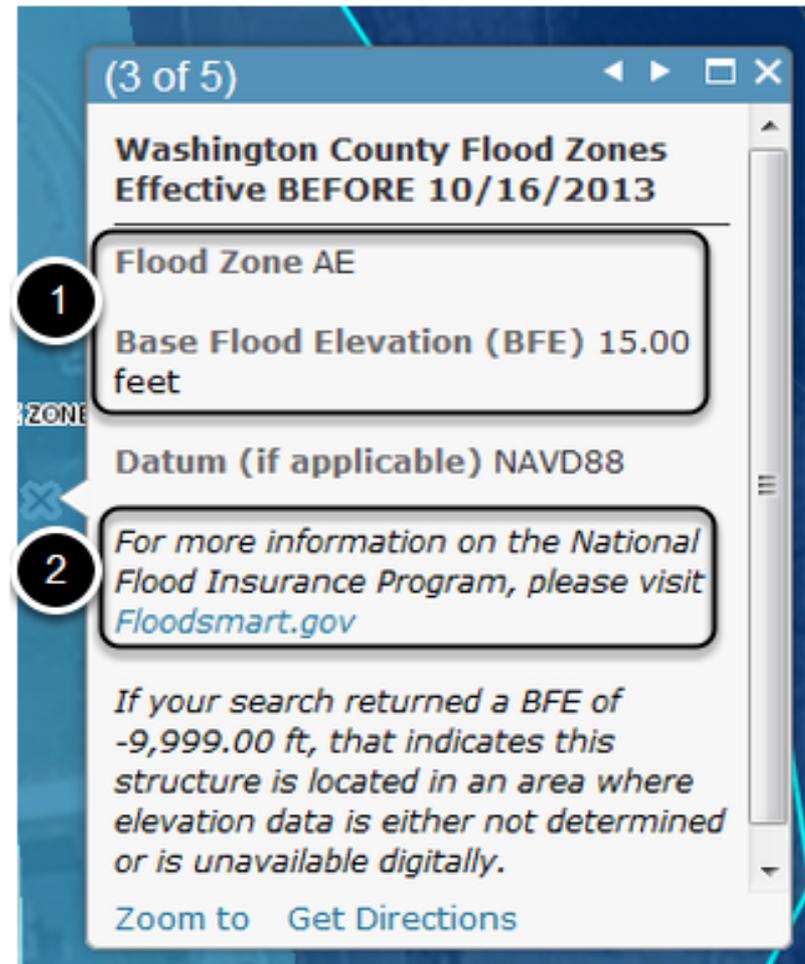
1. Displays the map panel, map panel type and map panel effective date for 35 Ocean Road Narragansett, Rhode Island.
2. The FEMA Map Service Center provides both effective and historic Flood Insurance Rate Map (FIRM) panels for further review.
3. Once the desired map panel is chosen, a FIRMette Tutorial is available for users to learn how to quickly create an official FIRMette.



# Step 4 Cont.: Previously Effective Flood Zone Details

Click the forward arrow to display information about the **Washington County Flood Zones Effective Before 10/16/2013**.

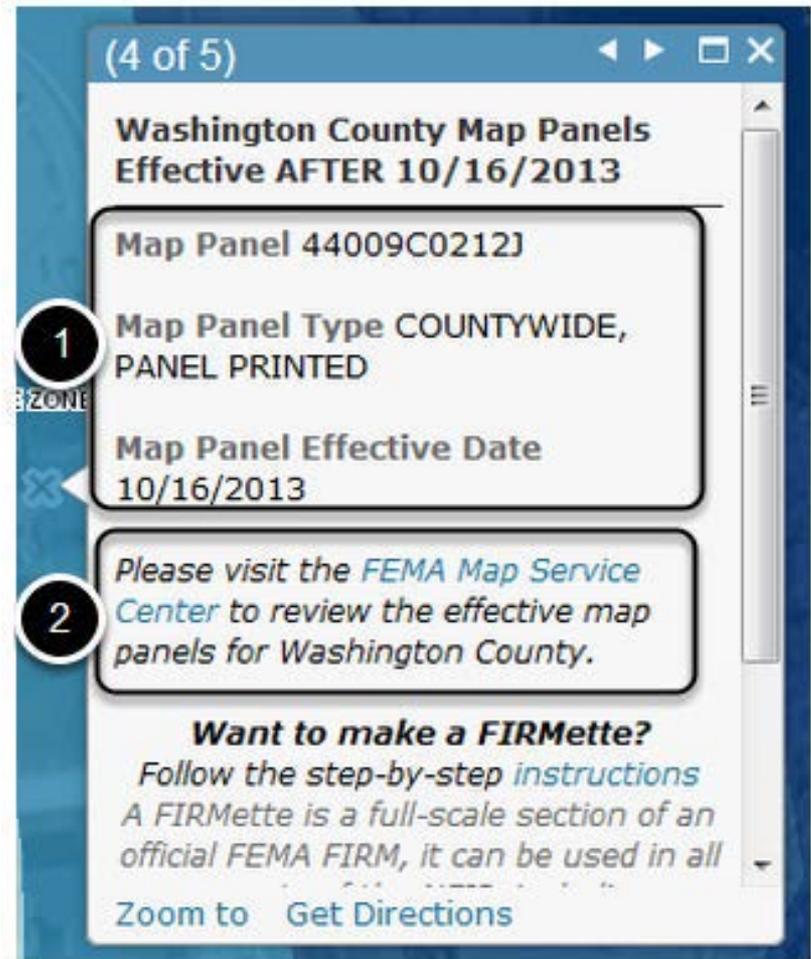
1. Displays the Flood Zone and Base Flood Elevation specific to 35 Ocean Road Narragansett, Rhode Island **before** October 16, 2013.
2. Users interested in learning more about the National Flood Insurance Program are encouraged to visit [www.floodsmart.gov](http://www.floodsmart.gov).



# Step 4 Cont.: Currently Effective Map Panel Details

Click the forward arrow to display information about the **Washington County Map Panels Effective After 10/16/2013**.

1. Displays the updated map panel (suffix only), map panel type and new map panel effective date for 35 Ocean Road Narragansett, Rhode Island.
2. The FEMA Map Service Center provides a list of the effective Flood Insurance Rate Map (FIRM) panels for all of Washington County.



# Step 4 Cont.: Currently Effective Flood Zone Details

Click the forward arrow to display information about the **Washington County Flood Zones Effective After 10/16/2013**.

1. Displays the Flood Zones and Base Flood Elevation specific to 35 Ocean Road Narragansett, Rhode Island **after** October 16, 2013.

*Click on 'X' outlined in green (demonstration only) to close pop-up and return to map.*

(5 of 5) ◀ ✕

**Washington County Flood Zones Effective AFTER 10/16/2013**

**Flood Zone AE**

Base Flood Elevation 14.00 feet

Datum (if applicable) NAVD88

*For more information on the National Flood Insurance Program, please visit [Floodsmart.gov](http://Floodsmart.gov)*

*If your search returned a BFE of -9,999.00 ft, that indicates this structure is located in an area where elevation data is either not determined or is unavailable digitally.*

[Zoom to](#) [Get Directions](#)



# Before New Effective Date Progression

This display shows how the map would appear if **only** the Flood Zones Effective BEFORE September 2013 layers were activated.

The screenshot shows an ArcGIS web application interface. On the left is a 'Contents' panel with a list of layers. The 'Flood Zones Effective BEFORE September 2013' layer is checked and highlighted in green. Below it, 'General Mapping Information' is also checked and highlighted. The map area shows an aerial view with a semi-transparent flood zone overlay. A location popup is visible over the map, displaying the address '35 Ocean Rd, Narragansett, RI, 02882'. At the bottom, three detail popups are open:

- (1 of 3) Structure Details:** Address 35 OCEAN RD. NARRAGANSETT RI, 02882. Comments: NARRAGANSETT CHAMBER OF COMMERCE.
- (2 of 3) Washington County Flood Zones Effective BEFORE 10/16/2013:** Flood Zone AE, Base Flood Elevation (BFE) 15.00 feet, Datum (if applicable) NAVD88. Includes a note about the National Flood Insurance Program and a link to Floodsmart.gov.
- (3 of 3) Washington County Map Panels Effective BEFORE 10/16/2013:** Map Panel 44009C0212H, Map Panel Type COUNTYWIDE, PANEL PRINTED, Map Panel Effective Date 10/18/2010. Includes a note about the FEMA Map Service Center and a link to FIRMette instructions.



# After New Effective Date Progression

This display shows how the map would appear if **only** the Flood Zones Effective AFTER September 2013 layers were activated.

The screenshot displays a web-based flood mapping application. On the left, a 'Contents' panel lists various layers, with 'Flood Zones Effective AFTER September 2013' and its sub-layers (Bristol, Kent, Newport, Providence, and Washington County) checked. Below this, 'General Mapping Information' is also checked, including 'Structures', 'Coastal Barrier Resources System (CBRS)', 'Otherwise Protected Areas', and 'Municipal Boundaries'. The main map area shows an aerial view of a residential area with a large, light-colored flood zone overlay. A 'Location' pop-up window is visible over the map, showing the address '35 Ocean Rd, Narragansett, RI, 02882'. At the bottom, three pop-up windows are displayed: (1 of 3) 'Structure Details' for the address, (2 of 3) 'Washington County Map Panels Effective AFTER 10/16/2013' with details like 'Map Panel 44009C0212J' and 'Map Panel Effective Date 10/16/2013', and (3 of 3) 'Washington County Flood Zones Effective AFTER 10/16/2013' showing 'Flood Zone AE' and 'Base Flood Elevation 14.00 feet'.



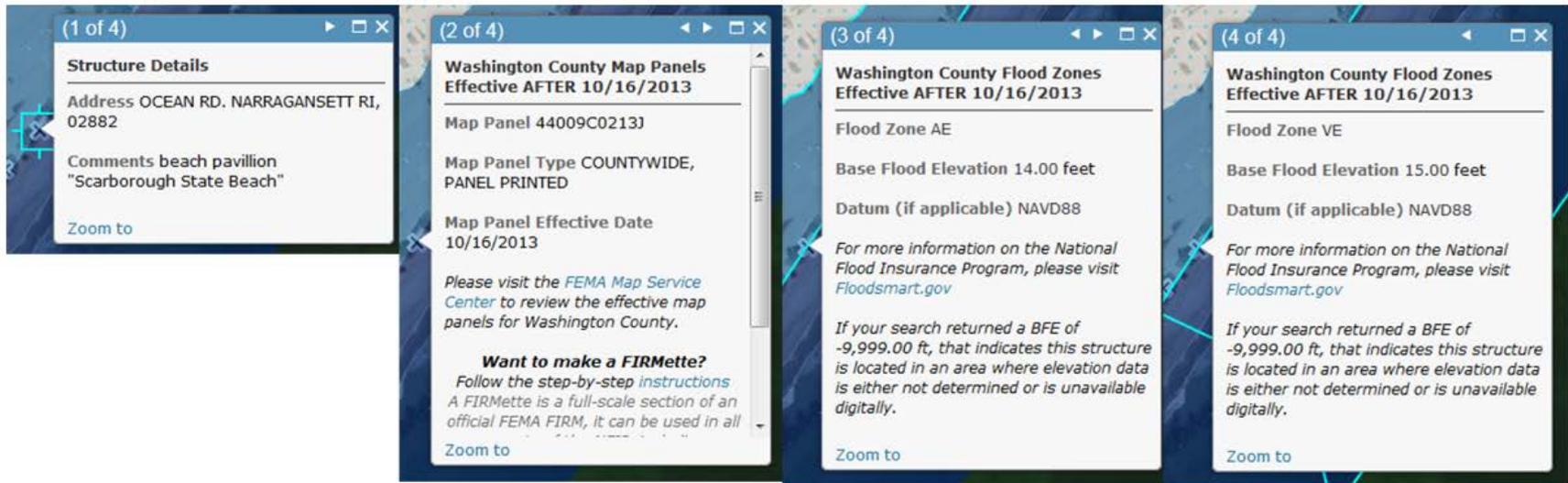
# Additional Topics: Flood Zone Extent

## Property ONLY Located in Flood Zone:

Federal insurance and development regulations are only required if a structure (not property) is located in a high risk flood zone.

## Structures Located in Multiple Flood Zones:

If a pop-up displays two or more distinct flood zones, then it is practice for both development standards and insurance rating purposes to default to the highest risk flood zone. The example below displays this structure being located in both an AE and VE flood zone. Therefore, the VE zone would take precedence.



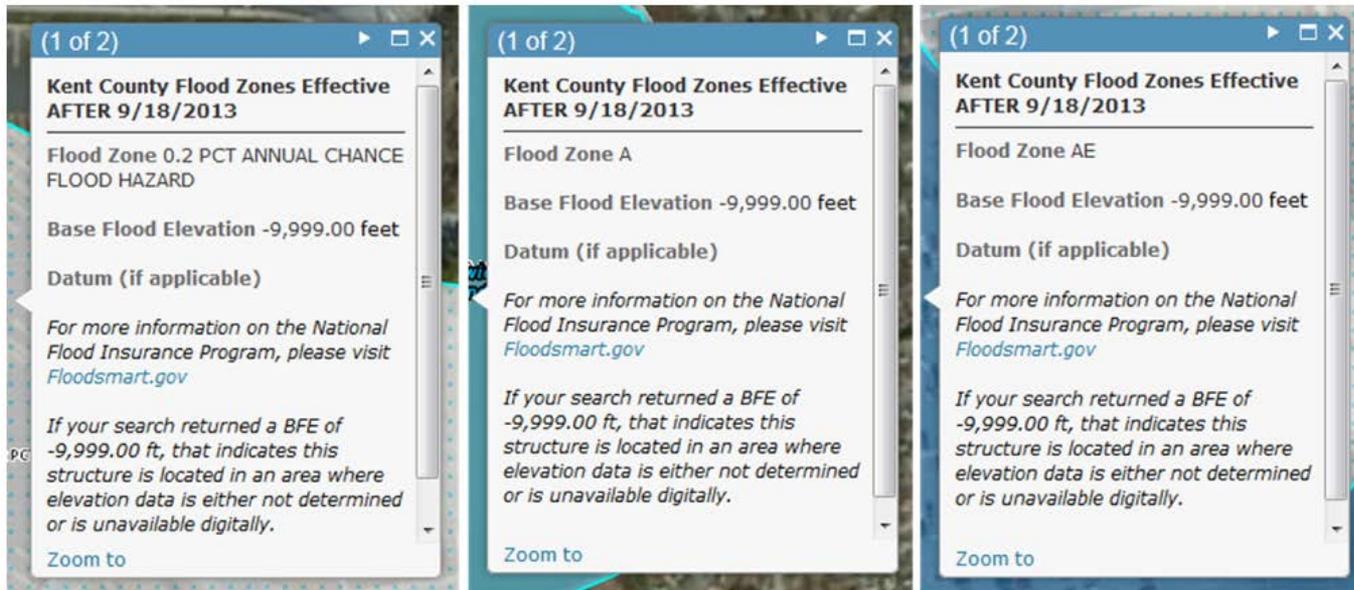
# Additional Topics Cont.: No Elevation Data Returned

If your search returned a BFE of -9,999.00 ft in one of the following zones:

- 0.2 PCT Annual Chance** - No elevation has been determined by FEMA because this area is NOT considered a high risk flood area.

- Zone A** - This area is considered a high risk flood zone. However, elevation data may not be available on the FIRM. Elevation data for this area may be available through your municipality or by hiring a Professional Licensed Surveyor to determine an elevation.

- Zone AE** - This area is considered a high risk flood zone in an inland area where elevation data IS available on the FIRM.



# Additional Topics: Coastal Barrier Resources System

If your search returned a structure located in either a Coastal Barrier Resource System (CBRS) or Otherwise Protected Area (OPA) on the map, it is important to note the following:

1. Although these areas are depicted on the FEMA FIRMs, they are delineated and regulated by the United States Fish & Wildlife Service.
2. If a structure falls within one of these areas there may be flood insurance implications. It is recommended to contact the city or town for more information.

