



FEMA

# Revised Preliminary FIRM Rollout Meeting

*Morris County, NJ*

Andrew Martin, Region II Mitigation Liaison

March 1, 2016

**RiskMAP**

Increasing Resilience Together





# FEMA's Mitigation Mission

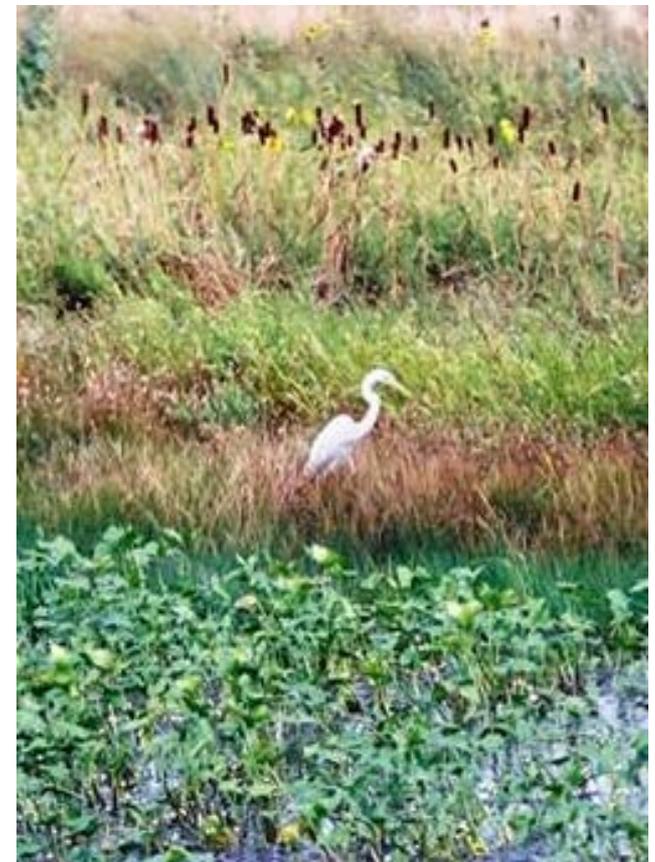


***Reduce the loss of life and property by lessening the impact of disasters.***

# Success Stories

## Wetlands Restoration

Mount Olive and Roxbury Townships  
*An old sand and gravel mine converted into wetlands*



County of Morris, NJ  
Planning & Public Works

### Flood Mitigation Program (FMP)

Help residents and municipalities take actions to minimize the physical and financial impacts of flood events through various mitigation measures

- **MATCH Program** (County is the subordinate funder)  
Help projects already funded by an existing State/Federal program
- **CORE Program** (County is the majority funder)  
Provide another avenue of assistance for those not part of another program



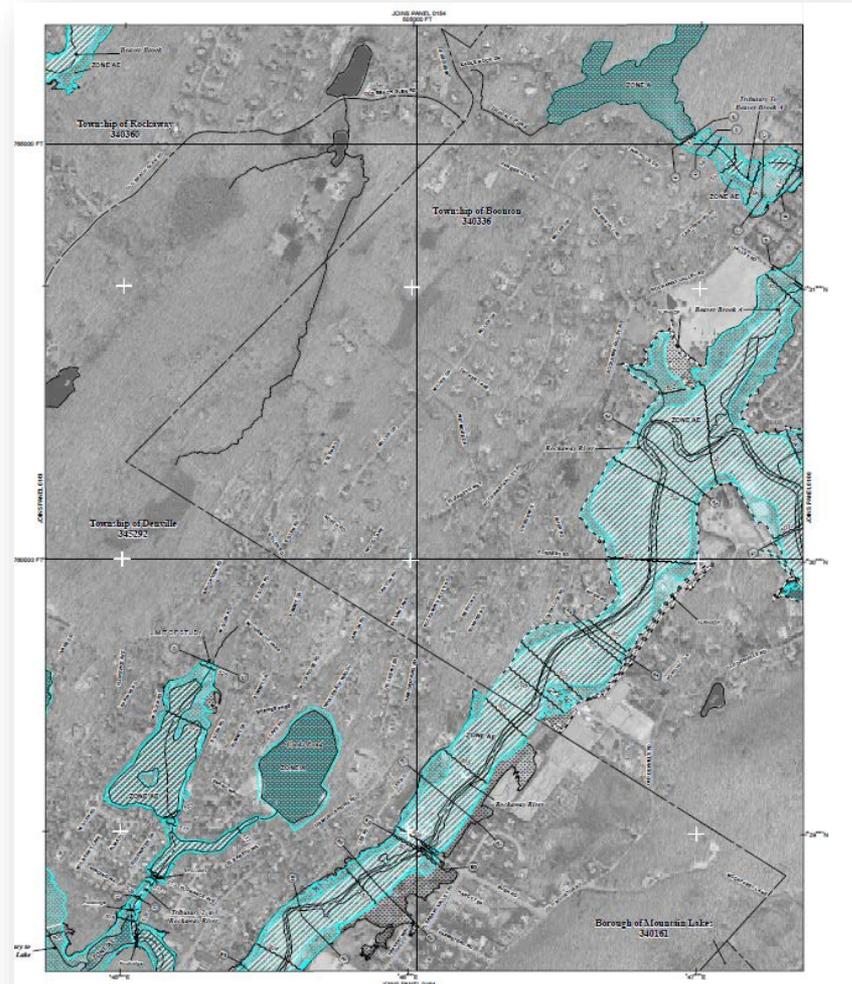
# Agenda

<b>Introduction</b>	<ul style="list-style-type: none"><li>• FEMA's mission</li><li>• Meet the presenters</li><li>• Meet the attendees</li></ul>
<b>Overview of Preliminary Flood Insurance Rates Maps (FIRMs)</b>	<ul style="list-style-type: none"><li>• What are FIRMs</li><li>• Other Uses (besides flood insurance)</li><li>• Changes to the National Flood Insurance Program</li></ul>
<b>History of the Mapping Project</b>	<ul style="list-style-type: none"><li>• Previously released maps (2010, 2011 &amp; 2015)</li><li>• Community feedback/identified issues</li></ul>
<b>Current Status</b>	<ul style="list-style-type: none"><li>• FEMA's comprehensive review of all the panels</li><li>• Addressing previously identified issues</li><li>• Incorporating changes</li></ul>
<b>Next Steps</b>	<ul style="list-style-type: none"><li>• Timeline for map adoption</li><li>• Overview Discussion of meetings to follow: the Consultation Coordination Officers (CCO) Meeting and Open House (public meeting)</li><li>• Plan the CCO and Open House</li><li>• Questions and Answers</li></ul>

# Overview of Preliminary FIRMs

## Identifies the areas of flood risk

- Special Flood Hazard Areas (**SFHAs**)
  - Zones A and AE
  - Zone X (0.2 PCT)
- Base Flood Elevations (**BFEs**) for 1% annual chance flood



**DOES NOT AFFECT INSURANCE REQUIREMENTS OR COSTS UNTIL ADOPTED**



# Preliminary FIRM Uses

**Keystone Associates re-designed the building when they saw Broome County's preliminary FIRMs in 2010**

- Raised the first floor 2' above the **NEW 1-percent-annual-chance flood BFE**
- Saved money and time after being hit by flooding during Tropical Storm Lee



# Accessing Preliminary Data

The screenshot shows the FEMA Flood Map Service Center homepage. At the top is the FEMA logo and a search bar. Below are navigation links for 'Plan, Prepare & Mitigate', 'Disaster Survivor Assistance', 'Response & Recovery', 'Topics & Audiences', 'Blog, Newsroom, Videos & Photos', and 'About FEMA'. A central banner reads 'Flood Map Service Center' with a 'Need Help?' button. Below the banner are navigation tabs: 'MSC Home', 'MSC Search', 'MSC Products and Tools', 'MSC How-To', and 'MSC Email Subscriptions'. A large map area displays 'Welcome to FEMA's Flood Map Service Center' with a search bar and a 'Search' button. To the right, there is a section titled 'About Flood Map Service Center' with introductory text.

FEMA Map Service Center:

<https://msc.fema.gov/>

Online Preliminary FIRM Data Viewer:  
*currently under development*

The screenshot shows a web browser window displaying the 'FEMA Morris Co., NJ Preliminary FIRM Data Viewer'. The browser address bar shows the URL 'http://apps.fema.gov/PreliminaryViewer/appid=dot'. The page title is 'FEMA Morris Co., NJ Preliminary FIRM Data Viewer'. The interface includes a 'Details' tab, a 'Legend' section, and a 'Layers' section. The legend lists 'Preliminary\_FIRM\_Morris\_NJ' with sub-items for 'Political Jurisdiction Boundaries' (Community and County), 'FIRM Panels' (COUNTYWIDE, PANEL PRINTED and COUNTYWIDE, NOT PRINTED), and 'Other Layers' (Political Jurisdiction Areas). The main map area shows a satellite view of a region with a red grid overlay representing FIRM panels.

# National Flood Insurance Program (NFIP)

- Voluntary program based on a mutual agreement between the Federal government and the local community
- In exchange for adopting and enforcing FPM ordinance, Federally-backed flood insurance is made available

The screenshot shows the FloodSmart.gov website. At the top right, it says "Call toll free: 1-888-379-9531 or have us call you" and has a search bar. The main navigation menu includes: HOME, FLOODING & FLOOD RISKS, ABOUT THE NATIONAL FLOOD INSURANCE PROGRAM, RESIDENTIAL COVERAGE, COMMERCIAL COVERAGE, POLICYHOLDER RESOURCES, and PREPARATION & RECOVERY. A "RESOURCES" section lists: Agent Site, Agent Locator, Community Rating System, Community Resources, File Your Claim, Frequently Asked Questions, Glossary, Flood Facts, Media Resources, Toolkits, and Email Updates. The main banner features the headline "How will the New Flood Maps Affect Your Flood Risk?" with a "SEARCH YOUR AREA" button. Below the banner are navigation tabs: Protect What Matters, Hurricane Season, BW-12, New Flood Maps, and Flood After Fire. The content area includes a "LATEST NEWS" section, a "GET COVERAGE FOR AS LOW AS \$129 PER YEAR" tile, a "WHAT COULD FLOODING COST ME?" tile, and a "One-Step Flood Risk Profile" form with fields for Address, City, State, Zip code, and Residential? (Yes/No).



# Legislative Reforms

## NFIP Challenges

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- Pre-Sandy, NFIP was \$18B in debt to Treasury (\$16B from Katrina)
- Subsidized rates do not adequately reflect actual flood risk

## July 2012: Biggert-Waters Flood Insurance Reform Act

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- Prohibit premium subsidies on new or lapsed policies
- Phase out subsidies for all policies
- Require banks to enforce purchase requirements more vigorously
- Analyze affordability impacts by April 2013

## March 2014: Homeowner Flood Insurance Affordability Act

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- Repeals triggers for new or lapsed policies
- Caps rate increases at 18% annually (some exceptions)
- Enables newly mapped properties to purchase preferred risk rate for 1 year
- Authorizes additional funds for affordability study



# Morris County Mapping Project



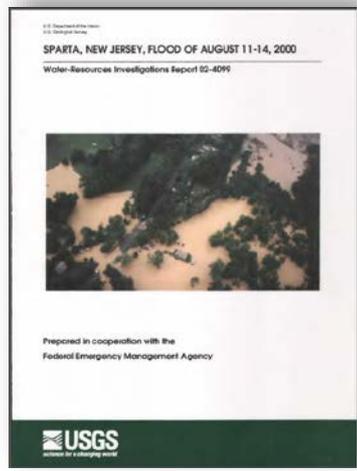
Previously released FIRMs:

- **4/30/2010, 6/10/2011, and 3/11/2015**

Initially, the streams studied were driven by the **severe flooding of August 11-14, 2000**

- This flooding was documented in the USGS WRI Report 02-4099

Additional streams were later added to the project





# Problems with the Maps

A	B	C	D	E	F
COMMUNITY	DATE OF CORRESPONDANCE	DATE RECEIVED BY FEMA and/or HAMPP	COMMENT	STREAM(s)/ PANEL(s)	DRAFT RESOLUTION
1 Township of Harding	4.10.15	4.15.15	Flood Study Section 2.3 (Principal Flood Problems) - The list of problem flooding locations provided on Page 24, first paragraph, should be revised to delete the reference to Primrose Trail and add Lee's Hill Road at Primrose Brook and Lee's Hill Road at the Passaic River.	Primrose Brook and Passaic River	Will update road names
2 Township of Harding	4.10.15	4.15.15	This same paragraph also refers to a tributary of Great Brook that crosses Featherbed Lane and has "been inundated frequently". There is no tributary to Great Brook that crosses Featherbed Lane. This sentence should either be corrected or deleted.	tributary to Great Brook	Historic and current flood information will be reviewed and updated
3 Township of Harding	4.10.15	4.15.15	Flood study Section 3.1 (Hydrologic Analysis) - The order of the first three entries for Great Brook in Table 7 are reversed. This should be corrected.	Great Brook	Table 7 will be reviewed and updated as needed
4 Township of Harding	4.10.15	4.15.15	Flood Study Section 3.1 - Table 7 should be revised to provide additional entries for the Passaic River at Stream Gauges 0307000 (Millington Gage) and 0307000 (Passaic 202).	Passaic River	Passaic River will be reviewed and updated as needed
5 Township of Harding	4.10.15	4.15.15	Flood Study Section 3.1 - Table 7 includes references to "North Temple Wick Road". No such road exists.		Will compare current transportation data and update with correct name
6 Township of Harding	4.10.15	4.15.15	Flood Study Section 3.2 (Hydraulic Analysis) - Please provide the Township with a copy of all HEC-RAS input and output data used to generate the revised FIRM maps for the Tributary to Great Brook.		HEC-RAS modeling can be made available
7 Township of Harding	4.10.15	4.15.15	Flood Study Section 3.2 (Hydraulic Analysis) - Confirm whether the updated Passaic River modeling included the new bridge constructed by the NJDOT at Route 202. Additionally, bridges on Primrose Brook and Great Brook have been replaced since the last flood study. The Township would like to know if up to date field surveys have been completed and, if not, what is the date of the field surveys from which the flood elevations have been derived.	Passaic River, Primrose and Great Brook	Models will be reviewed and date of field surveys to be provided
8 Township of Harding	4.10.15	4.15.15	Flood Study Section 3.2 (Hydraulic Analysis) - Issue with stream sections immediately upstream of the Great Swamp, which was acquired by the US Department of the Interior (approx 45 years ago). Streams within the swamp have lost considerable cross-section flow area due to siltation and debris. As this has occurred, adjacent upstream sections have been similarly impacted. The Township requests that FEMA confirm whether this issue has been considered in the current preliminary Flood Study and determine whether updated analyses	Great Swamp	Adjacent streams will be logged into CNMS as need for updates due to age of study and information provided there regarding siltation and debris
9 Township of Harding	4.10.15	4.15.15	Flood Study Section 3.2 (Hydraulic Analysis) - Provide information on how overflow from the Passaic River to Primrose Brook (from Osborne Pond) was modeled.	Passaic River, Primrose Brook	H&H to be provided
10 Township of Harding	4.10.15	4.15.15	Flood Study Section 3.2 (Hydraulic Analysis) - This section should indicate what methods were used to establish flood elevations within the Great Swamp. This generally includes the portions of Great Brook, Primrose Brook, and the Passaic River below the most downstream road crossing within the Township limits. The Township previously obtained approval from FEMA to utilize a flood profile of the Great Swamp based on measured flood elevations from Tropical Storm Doria (August 1971). It is unclear whether the proposed flood elevations within the Great Swamp were based on this profile or other data.	Great Swamp	H&H to be provided
11 Township of Harding	4.10.15	4.15.15	Flood Study - Vertical Datum - The materials provided with the report indicate that the conversion factor utilized to adjust all existing flood elevations from the NGVD 29 datum to the NAVD 88 datum was - 0.8 feet. However, a review of National Geodetic Survey information finds that the adjustment factor for the Township of Harding is - 0.40 feet. The Township would like to know why an adjustment factor that is 66% greater than the actual adjustment factor was utilized for the draft flood study. Given the accuracy of the topographic data		The Datum conversion is a Countywide conversion, will

Feedback from previously released panels



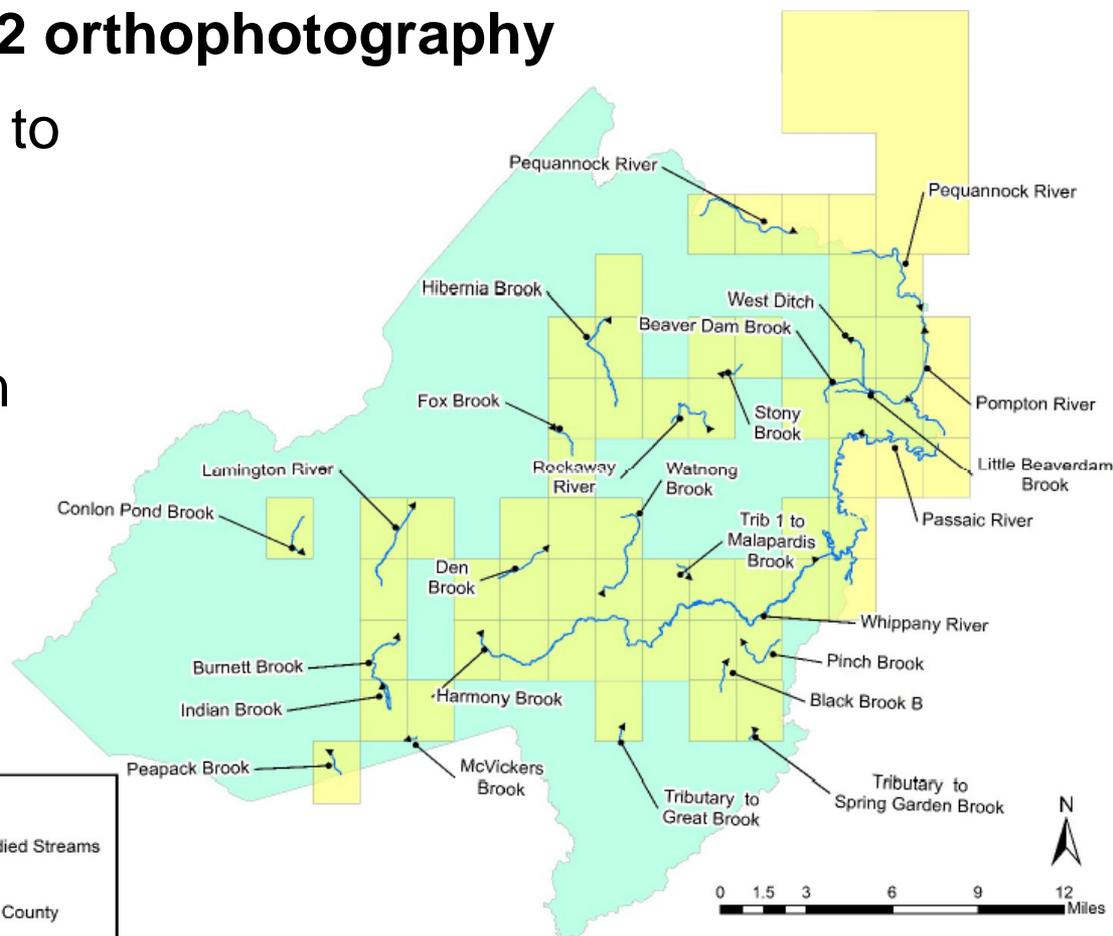
A comprehensive review of ALL the panels and FIS report was done and not just where issues were identified

- A FRESH START approach was used

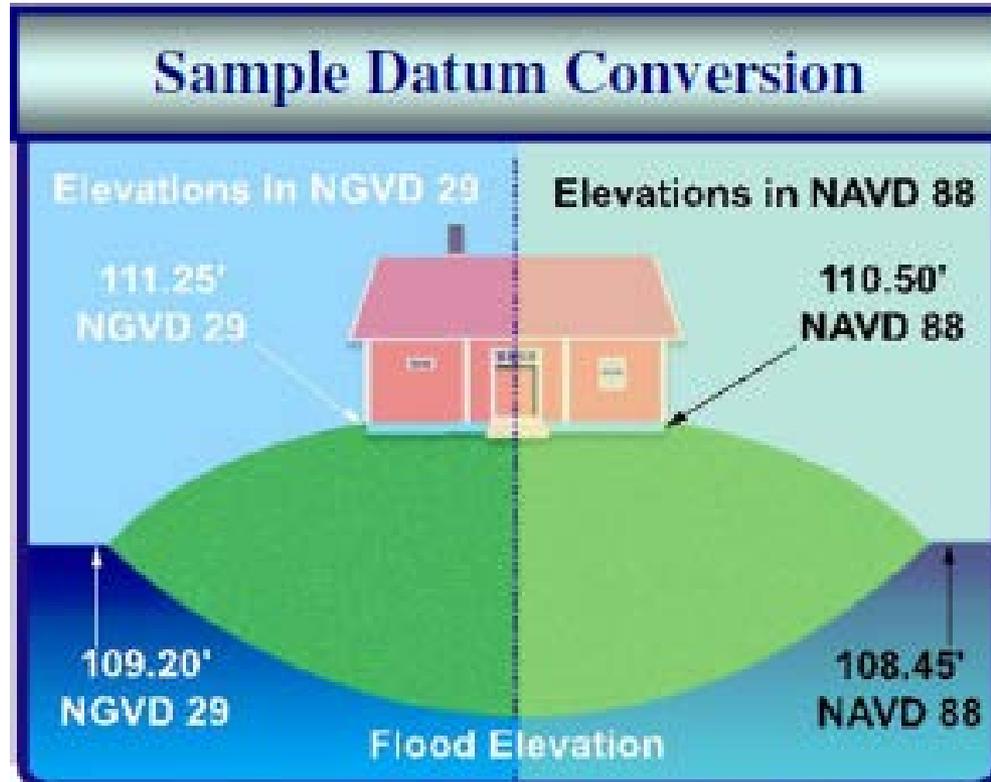


# Revised Preliminary FIS & FIRMs

- Detailed hydrological and hydraulic analysis for **95.47 total miles** of streams and rivers.
- Updated base map to **2012 orthophotography**
- Updated topographic data to **2012 USGS topography**
- Incorporated New Jersey Flood Hazard Area Design Flood (**NJFHADF**)



# Vertical Datum



For **Mapping purposes** in Morris County: **NGVD 29** – 0.8 feet = **NAVD 88**

*If you need an exact conversion rate, you will need a lat/long*

Vertical Datum Conversion Tool: <http://vdatum.noaa.gov/>



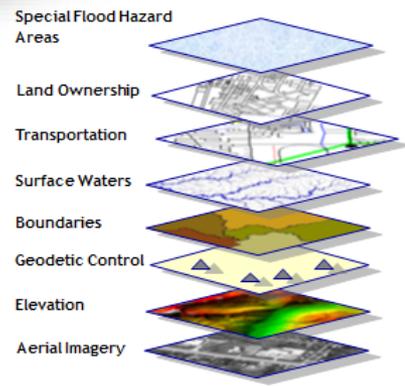
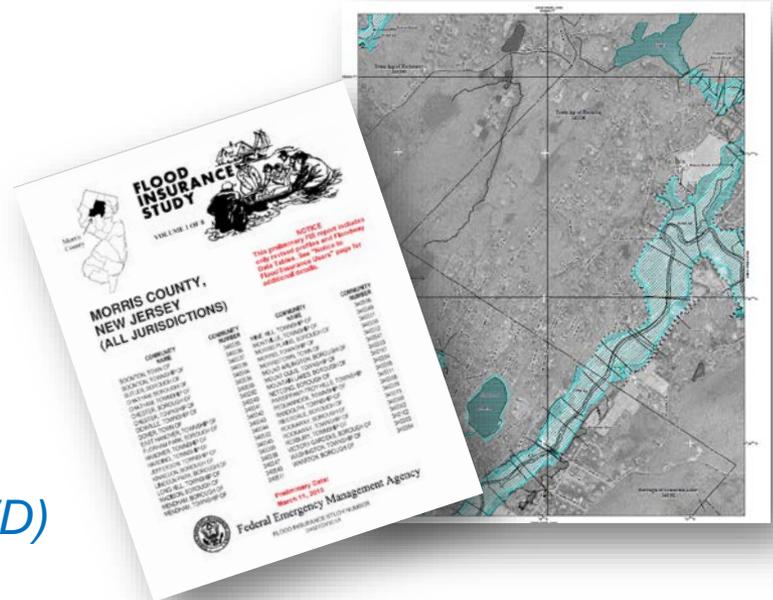
# Regulatory Products

Revised preliminary FIRM and FIS released on 2/26/2016

- EVERY Panel has been revised

Each community will get:

- Revised Preliminary FIS Report  
*(Volume 1 on paper, all others will be on DVD)*
- Revised Preliminary FIRMs  
*(one paper copy)*
- DVDs containing digital preliminary data *(e.g., FIRM panels, complete FIS report, GIS viewer and shapefiles)*



# Review Results (Examples)



## Mismatches noted for Morris County

- Discrepancies in the 1-percent-annual-chance flood elevations between adjacent communities
- Missing delineations between adjacent communities (gaps in the delineations)

# Review Results (Examples)

B	148,425	6,572	41,837	0.6	174.2	174.2	174.4	0.2
C	152,968	9,266	53,162	0.5	174.2	174.2	174.4	0.2
D	162,149	9,537	68,511	0.2	174.3	174.3	174.5	0.2
E	180,541	4,185	34,014	0.8	174.4	174.4	174.5	0.1
F	185,429	2,976	20,405	1.5	174.5	174.5	174.6	0.1
G	191,859	1,589	10,374	1.8	174.8	174.8	175.0	0.2
H	197,139	1,201	6,814	1.5	175.4	175.4	175.5	0.1
I	207,421	6,590	35,105	0.3	175.7	175.7	175.9	0.2
J	251,880	1,526	13,254	0.3	173.6	173.6	173.8	0.2
K	253,765	1,061	7,689	0.6	173.7	173.7	173.9	0.2
L	257,195	406	4,291	1.1	173.8	173.8	174.0	0.2
M	260,140	1,404	7,689	0.6	174.0	174.0	174.2	0.2

Transition of different study reaches occurs between XS's I and J

<sup>1</sup>Feet above confluence with Newark Bay

TABLE 11	FEDERAL EMERGENCY MANAGEMENT AGENCY	<b>FLOODWAY DATA</b>
	<b>MORRIS COUNTY, NJ</b> (ALL JURISDICTIONS)	<b>PASSAIC RIVER</b>

**Passaic River – Floodway Data table...  
Elevation discrepancy of 2.1'**



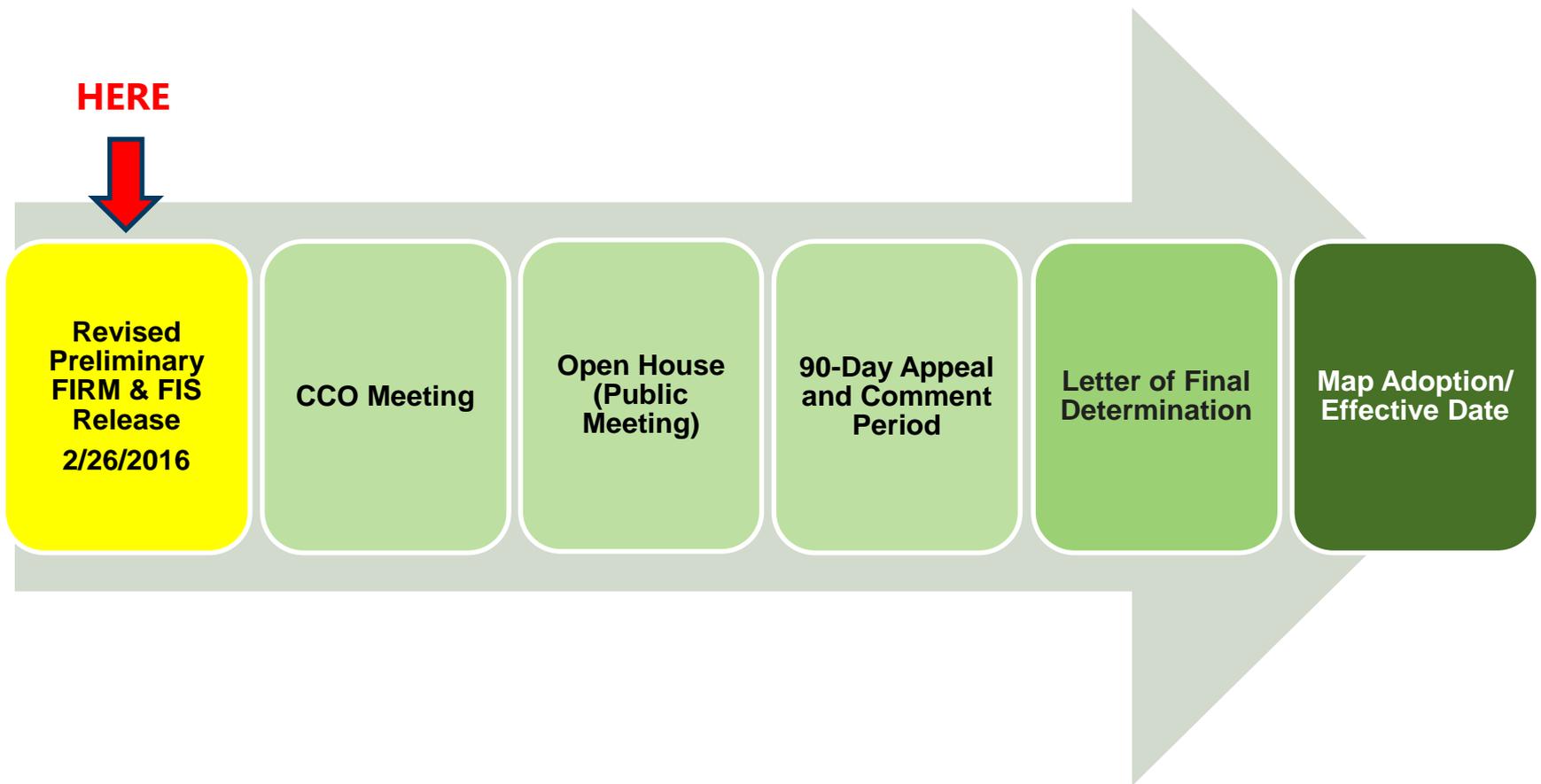
# Next Steps

1. **Verify** your municipality boundaries are correct
2. **Verify** the Morris County boundaries are correct
3. **Verify** your municipality road names and spelling, and the county road route numbers for the same stretch of road are correct
4. **Consider** whether the municipality road name or the county road route number, or both, should be used on the floodplain maps. *Example: “CR# NNN” may also be known as “XXXX Highway” for the same stretch of road; which should be used?*

During your review process of the floodplain delineations and floodways, if you find discrepancies, such as differences in 100-year water surface elevations between adjacent communities and/or missing delineations between adjacent communities, you should document the discrepancies and have the information available when NJDEP and/or FEMA asks for it.



# Timeline for Morris County



**Insurance purchase requirements don't take effect until maps are effective**

# Next Meetings



## Consultation Coordination Officers (CCO) Meeting

- FEMA & NJDEP will host
- FEMA's mapping team will be on hand to have technical discussions
- More detailed discussions on floodplain management and flood insurance requirements

## Open House

- One on one with your residents
- Inform people about their flood risk
- Answer questions about floodplain management and flood insurance

# Conclusion

Risk Changes  
Over Time



FEMA  
Provides Best  
Available Data



Community  
Officials  
Adopt Higher  
Standards



Property  
Owners Build  
to Higher  
Standards



More Resilient  
Communities  
Created



***Together, we all can create  
stronger and safer communities***

# Contacts

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# Questions?

**RiskMAP**  
Increasing Resilience Together

