

# Model Code Coordinated Ordinance

*New Jersey's Updated Flood Damage Prevention  
Ordinance Models*

*Adoption Process and Update*

*Monmouth County CRS Users Group*



**FEMA**

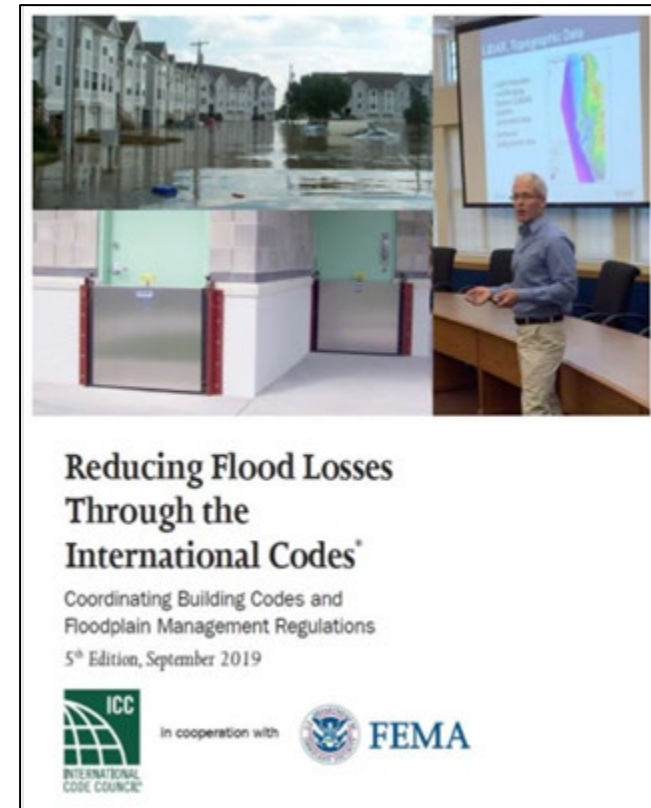
April 14, 2022



**NEW JERSEY  
DEPARTMENT OF  
ENVIRONMENTAL  
PROTECTION**

# Why a Code Coordinated Ordinance?

- An initiative of the International Code Council and FEMA to reduce flood losses in communities that have adopted the I-Codes
- [https://www.fema.gov/sites/default/files/2020-07/fema\\_reducing\\_flood\\_losses\\_rfl\\_5th-ed.pdf](https://www.fema.gov/sites/default/files/2020-07/fema_reducing_flood_losses_rfl_5th-ed.pdf)



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# Why a Code Coordinated Ordinance?

- Post Sandy FEMA recommendation
- They reduce flood damage losses
- They reflect the overlap in duties and responsibilities of all entities responsible for development in floodplains
- They provide an NFIP-compliant ordinance that:
  - Fixes existing gaps in State model ordinances
  - Clarifies flood resistant design requirements contained in the State Uniform Construction Code (ASCE 24)
  - Ensures compliance with the “Higher State Standards” (the Flood Hazard Area Control Act) as required by 44 CFR 60.1(d)
  - Is written in more straight-forward language for property-owners, engineers, architects, floodplain administrators, and construction officials
- They clarify processes for requesting mapping changes and for correcting ordinance violations and achieving compliance.

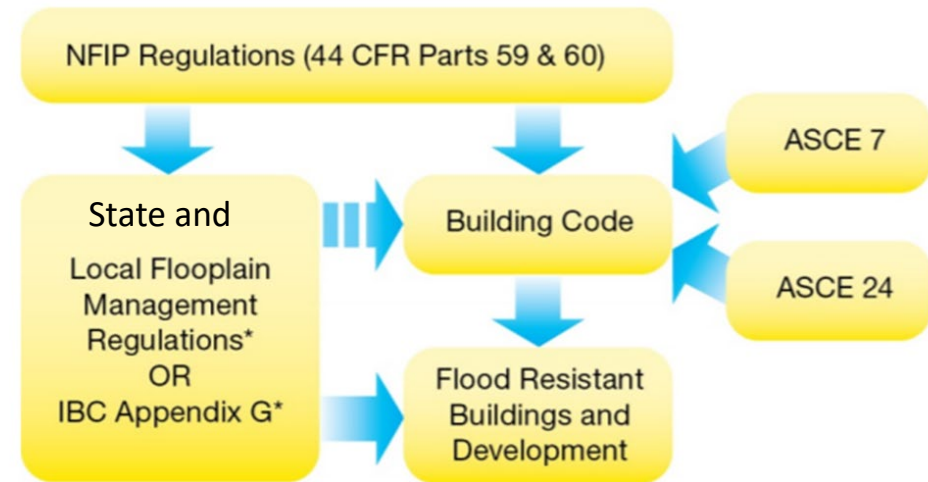


FEMA



# Why a Code Coordinated Ordinance?

- FEMA identified gaps and inconsistencies in previous State Model ordinance
- Identified need to tie together 3 regulations that govern development in the Special Flood Hazard Area
  - NFIP Regulations
  - Uniform Construction Code
  - New Jersey Flood Hazard Area Control Act



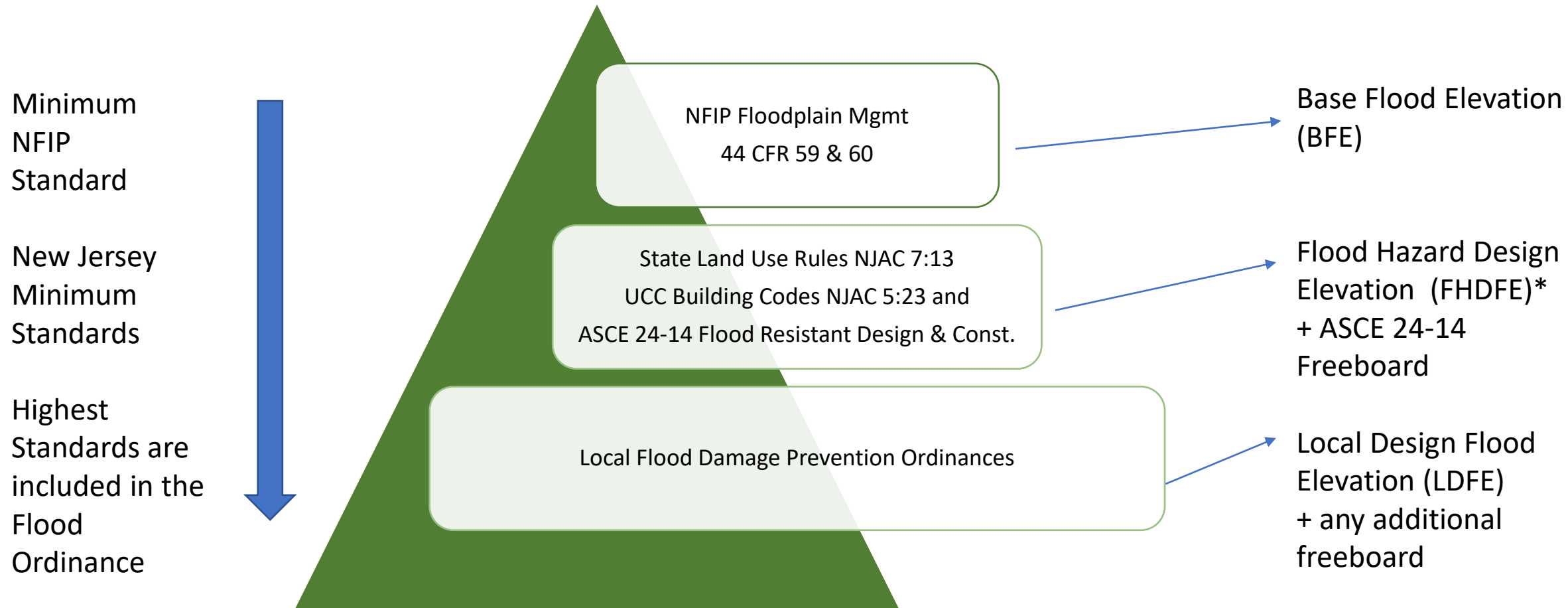
\* NFIP-consistent administrative provisions, community-specific adoption of Flood Insurance Studies and maps, and technical requirements for development outside the scope of the building code (and higher standards, in some communities).



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# The Precedence Rule & Flood Elevation



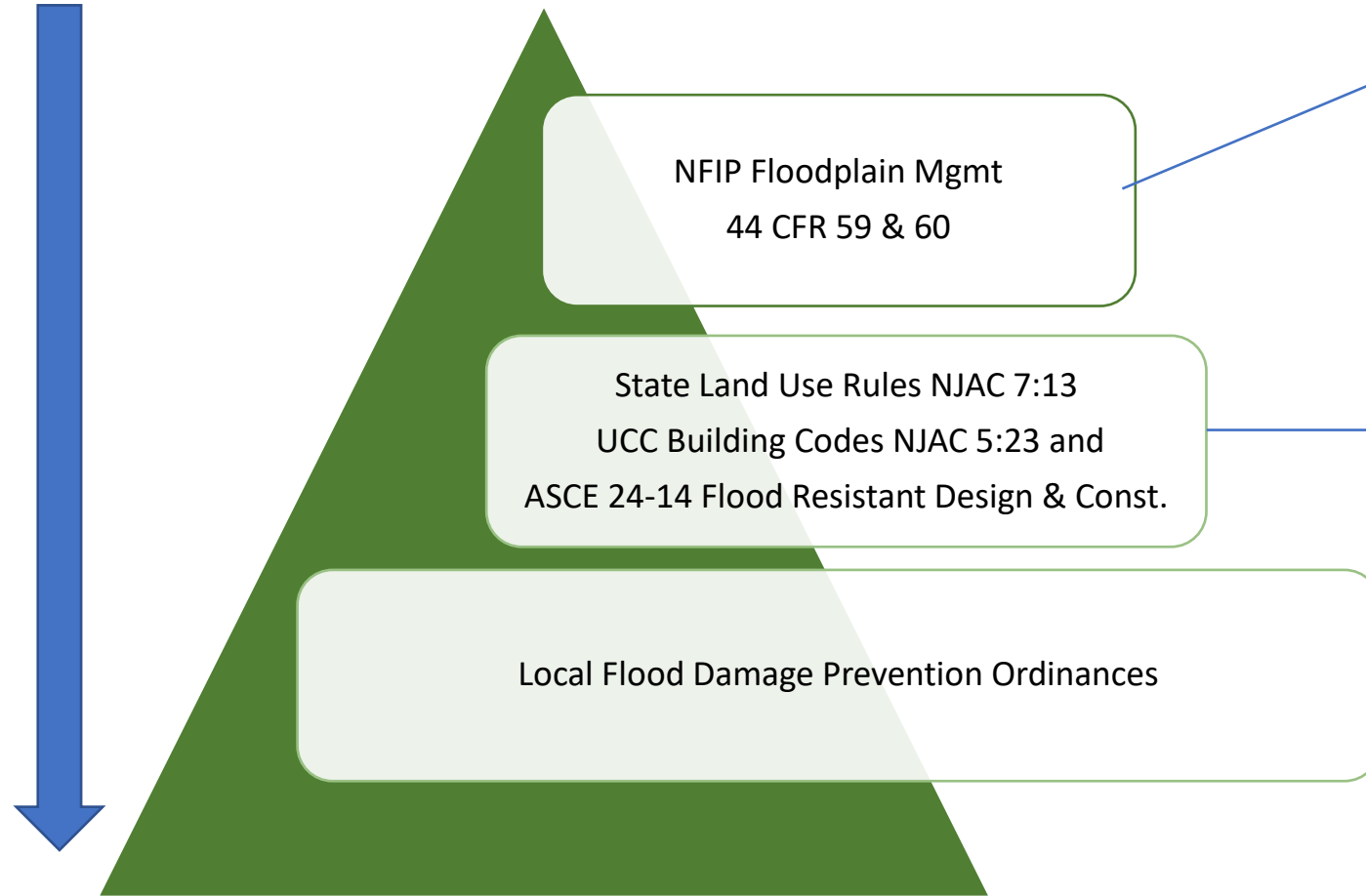
\*The FHDFE adds additional elevation as a factor of safety in riverine areas. The UCC ASCE 24-14 freeboard is added to the FHDFE. The UCC DFE is equivalent to the LDFE which can be no lower than what is required in the Flood Hazard Area Control Act.

# The Precedence Rule & the Regulated Flood Zone

1% Annual  
Chance 100  
Year Flood  
Zone

New Jersey  
Minimum  
Standards  
(Wider, More  
Extensive  
Flood Zone)

Can include  
additional  
Local Flood  
Hazard  
Protection  
Areas



Effective Map 1%  
Annual Chance /  
100 Year Flood  
Zone

Best Available  
Data FEMA Study,  
State Floodplain  
regulations for  
State-studied  
Watercourses, 50  
Acre Watersheds,  
Riparian Zones

Flood Hazard  
Protection Areas  
for High Hazard  
Areas via  
ASCE 24-14 1.23.2

# Why a Code Coordinated Ordinance?

- Together, FEMA and International Code Council developed the “Version 3 Model Ordinance”, which assumes:
  - No changes that weaken the flood provisions of the International Construction Code
  - Chapter 1 (Administrative Provisions) of the International Construction Code is not adopted to manage the floodplain
  - IBC Appendix G (Flood Resistant Construction) is not adopted
- Because DCA does not adopt Chapter 1 of the International Construction Code or Appendix G of the International Building Code in the Uniform Construction Code this version is the best fit
- Including this missing language in the code coordinated ordinance makes local flood damage prevention ordinances compliant with the NFIP



**FEMA**



# Why a Code Coordinated Ordinance?

- Version 3 of the model ordinance was the starting point for developing the ordinance. Additionally, the following was incorporated:
  - State Higher Standards in the Flood Hazard Area Control Act were incorporated
  - ASCE 24 construction requirements were clarified
  - N.J.S.A. 40:49 Penalties for Violations of Municipal Ordinances and NJ League of Municipalities model ordinance language was adopted to standardize the approach to violations including a 30-day compliance period.



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# FEMA Map Updates + Background

- FEMA typically requires County-Wide FIRM Map adoption
- In 2015 New York City appealed the preliminary coastal mapping, triggering the Coastal Restudy initiated in 2017
  - <https://fema.maps.arcgis.com/apps/Cascade/index.html?appid=a463a8f877d04aecb35c4f33dbbe486a>
- Because of this appeal, FEMA R2 allowed individual communities in Monmouth County the opportunity to adopt the preliminary maps
- Communities that adopted the Preliminary FIRMs
  - The 2009 effective FIRM maps are no longer required to be used for flood insurance or for floodplain management purposes.
  - The preliminary maps now become the effective maps and are to be used for flood insurance and floodplain management purposes
- Communities that did not adopt the Preliminary FIRMs
  - The flood insurance in the community will continue to be rated based upon the 2009 effective FIRMs
  - Both the 2009 effective FIRM and the preliminary FIRM will need to be considered for floodplain management, using the more restrictive of the two



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# Typical Six-Month Timeline for Adoption Letters of Final Determination

- **6 month:** FEMA 6-month Letter of Final Determination
- **5 month:** NJDEP Assistance Letter
- **3 ½ month:** Draft Ordinance
- **3 month:** NJDEP review of draft ordinance
- **3 month:** FEMA 90-day Reminder Letter
- **1 month:** FEMA 30-day Reminder Letter

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						
31						
31						
31						
31						
31						



**FEMA**



# Monmouth County Adoption Timeline (Letter of Final Determination)

- **Dec. 15, 2021** – FEMA Letter of Final Determination went out giving 6 months to update ordinance
- **Jan. 14, 2022** – State Letter providing model and panels
- **March 15, 2022** – Draft due to DEP for review\*
- **June 15, 2022** – Deadline for adoption



**FEMA**

\*If your community would like to incorporate higher standards or customized language from your current ordinance, it is suggested that you meet with us before the March 15<sup>th</sup> deadline to ensure that your changes meet all applicable codes referenced in your ordinance.

A graphic of a calendar for the month of January 2022. The days of the week are listed at the top: Sun, Mon, Tue, Wed, Thu, Fri, Sat. The dates are arranged in a grid. The dates 3, 10, 17, 24, and 31 are highlighted in red. The calendar is shown with a spiral binding on the left side.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						



# Monmouth County Communities that Received Letters of Final Determination from FEMA

- Rumson
- Deal
- Neptune Township
- Allenhurst
- Atlantic Highlands
- Avon-By-The-Sea
- Belmar
- Bradley Beach
- Fair Haven
- Highlands
- Interlaken
- Lake Como
- Little Silver
- Monmouth Beach
- Neptune City
- Oceanport
- Red Bank
- Sea Bright
- Spring Lake
- Spring Lake Heights
- Tinton Falls
- Asbury Park
- Long Branch
- Middletown
- Ocean Township
- Wall
- Loch Arbour

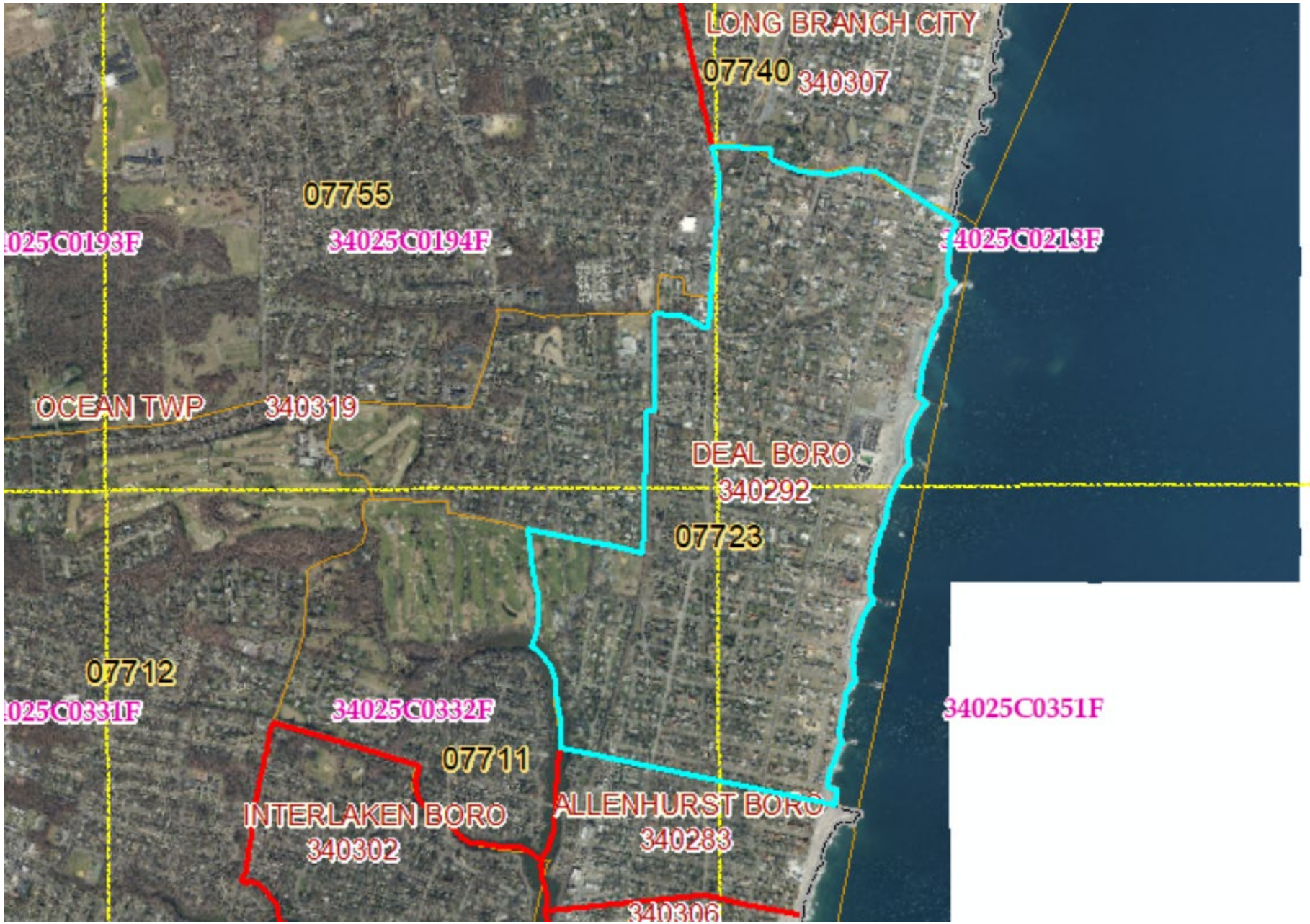
**If your community is in Monmouth County and on this list, the previous slide contains due dates.**

**If your community is in Monmouth County and not on this list, see following slide for due dates.**



**FEMA**

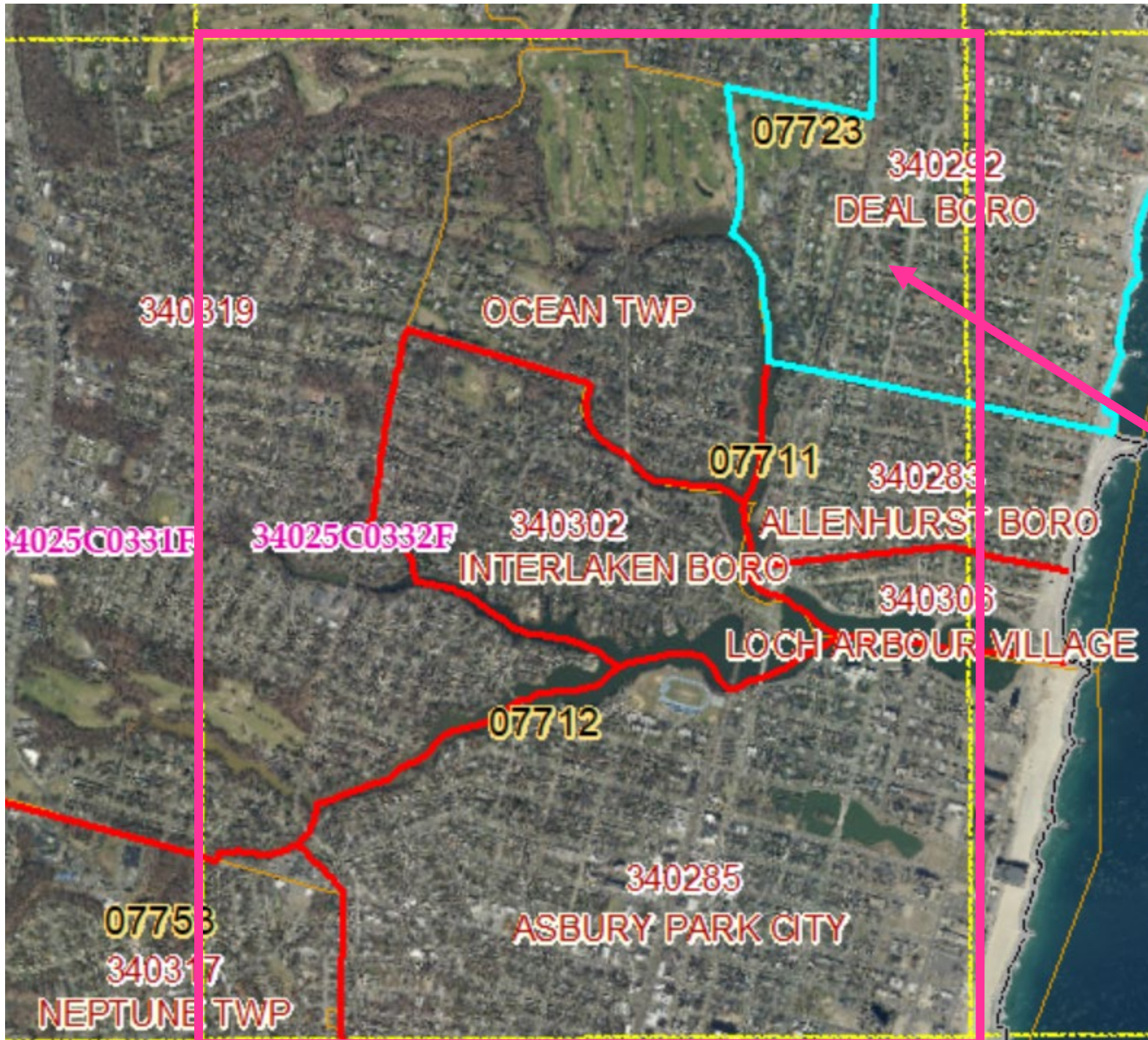




## Explanation of Current LFDs

- Deal Borough elected to adopt the Preliminary FIRMs as Effective
- Surrounding towns did not
- The blue selected area outlining Deal Borough will change to the Preliminary data, but the other portions of the panel will remain the same.

- All other areas of the panel will remain unchanged and contain data from the current effective FIRM.
- There can only be one effective Panel. So the suffix and effective date will change.
- This means that all other towns on this panel need to adopt the new panel.



Only part of panel that is changing to include the Preliminary FIRM Data.

# Monmouth Adoption Timeline (No Letter of Final Determination)

- **Jan. 18, 2022** – State Letters went out giving 6 months to update ordinance
- **Jan. 25, 2022** – Information session provided by the DEP
- **April 18, 2022** – Draft due to DEP for review\*
- **July 18, 2022** – Deadline for adoption

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

\*If your community would like to incorporate higher standards or customized language from your current ordinance, it is suggested that you meet with us before the April 18<sup>th</sup> deadline to ensure that your changes meet all applicable codes referenced in your ordinance.



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# Why is Monmouth County adopting ordinances now if new maps will be released in 2026?

- LFD Communities are required to adopt by FEMA or risk suspension from the National Flood Insurance Program.
- Past ordinance models were identified by FEMA as non-compliant. Adoption of the NJ Model will allow communities to remain in good standing with the NFIP.
- Since part of Monmouth County was updating their ordinance, the DEP extended the requirement to the rest of the county.
- All 553 participating communities will need to update their ordinances. The DEP is timing the requirement with mapping updates, hazard mitigation plan updates, and focusing on higher risk areas.



**FEMA**



# When to Adopt a Code Coordinated Ordinance

- **BEFORE A FLOOD DISASTER?**

- Public assistance to be used to elevate public structures to the LDFE.
- Increased Cost of Construction (ICC) policy riders to pay for elevation to the LDFE in properties with lowest floors built to the town's effective BFE or a lower LDFE.
- FEMA's BRIC and Flood Mitigation Assistance (FMA) programs will provide funds to elevate to the LDFE only if a town's ordinance require it.

- **AFTER A FLOOD DISASTER?**

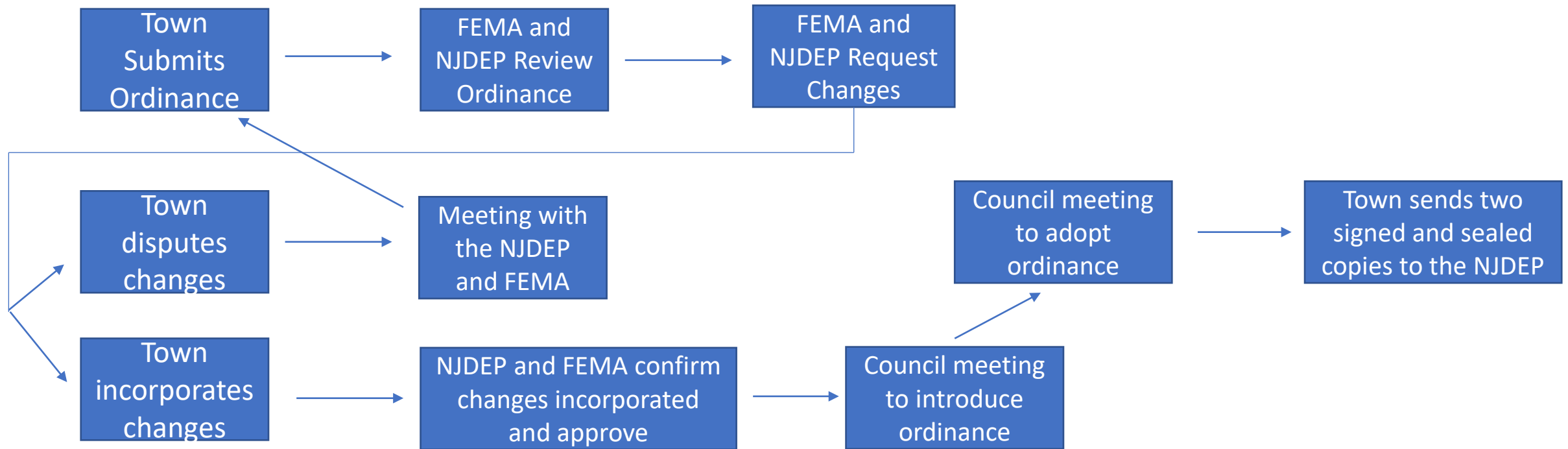
- New construction to be built to a higher standard.
- BUT... FEMA will not pay for elevating public structures to a higher LDFE.



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# Ordinance Review Workflow



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# What is the community responsible for?

- Updated FIS and FIRM panel numbers
- State plan and profile numbers
- Development permit in floodplain
- Local Floodplain Administrator Designation
- Updated map effective date
- Appeal Board designation
- Penalties for noncompliance
- Incorporate or remove higher standards language



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# Common Local Law Mistakes

- Failure to provide map repository location
- Failure to name a floodplain administrator position title (must be a position title; not a name. For example, Construction Official)
- Incorrect FIRM or FIS reference
- Failure to name Town/Village/City Board or Council as appeals board
- Inconsistent section numbering
- Failure to include all sections
- Failure to adopt State laws
- Alterations made which do not include all regulations that need to be followed



**FEMA**



# New Model Ordinances

## Color Coded

- **YELLOW** – Unique to the community
- **BLUE** – Higher standards

Unique and to be revised language highlighted in YELLOW.  
Optional Higher Standards highlighted in BLUE.

\*\*\*\*\*

ORDINANCE FOR ADOPTION OF THE FLOODPLAIN MANAGEMENT REGULATIONS  
OF {COMMUNITY}

ORDINANCE NO. XX-XX

AN ORDINANCE BY THE {community's governing body} AMENDING THE {name of community} CODE OF ORDINANCES TO REPEAL {insert appropriate chapter/section numbers}; TO ADOPT A NEW {insert appropriate chapter/section numbers}; TO ADOPT FLOOD HAZARD MAPS; TO DESIGNATE A FLOODPLAIN ADMINISTRATOR; AND PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

**101.1 Violations and Penalties for Noncompliance.** No structure or land shall hereafter be constructed, re-located to, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violation of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor under N.J.S.A. 40:49-5. Any person who violates this ordinance or fails to comply with any of its requirements shall be subject to one (1) or more of the following: a fine of not more than \$1250 [or optional higher threshold amount up to \$2000 under N.J.S.A 40:49-5], imprisonment for a term not exceeding ninety(90) days or a period of community service not exceeding 90 days, in the discretion of the [Municipal Court Judge]



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# Opportunities for Higher Standards

- Higher Freeboards added to the State 1-foot minimum
- Regulation to the FEMA 500-year floodplain or other flood map adopted by the municipality
- Enclosures – prohibition or size limitation
- Certificate of Occupancy Inspections at Property Sale or Rental
- Certificate of Occupancy Deed Notice
- Permit / Appeal Fee Structures



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Photo Credit: Dr. Jon Miller, Stevens Institute of Technology, Hoboken



# More Opportunities for Higher Standards

- Substantial Damage and Substantial Improvement Determination
  - Threshold lower than 50%
  - Cumulative thresholds – 5, 10, Lifetime of structure are common

Cost of Improvement or cost to Repair to Pre-Damage Condition

≥ 50% (or lower %)

Market Value of Building

Can also track Cumulative!

Table 5-1a. Tracking Cumulative Substantial Improvements, Determining Market Value for Each Permit Application (shows increases in market value).\*

Elapsed time from initial permit application	Current market value (at the time of each permit application)	Cost of improvement	Cost as percentage of current market value	Cumulative percentage
0 year	\$100,000	\$10,000	10%	10%
3 years	\$110,000	\$42,000	38%	48%
6 years	\$120,000	\$10,000	8%	56%

\* In this example, the 50 percent threshold is reached with the third permit application.

Table 5-1b. Tracking Cumulative Substantial Improvements, Determining Market Value for Each Permit Application (shows decrease, then increase in market value).\*

Elapsed time from initial permit application	Current market value (at the time of each permit application)	Cost of improvement	Cost as percentage of current market value	Cumulative percentage
0 year	\$100,000	\$10,000	10%	10%
3 years	\$90,000	\$28,000	31%	41%
6 years	\$105,000	\$10,800	10%	51%

\* In this example, the 50 percent threshold is reached with the third permit application.



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# Even More Opportunities for Higher Standards!

- ASCE 24-14 1.3.2 - Flood Hazard Protection Area designation for more restrictive elevations/construction
- ASCE 24-14 Chapter 3 Prohibition of New Construction or Substantial Improvements in High Hazard Areas:
  - Flash Flood Areas
  - Mudslide Areas
  - Erosion-Prone Areas
  - High Velocity Flow Areas
  - Ice Jam
  - Debris areas



**FEMA**



**Floodplain Communicator**



*New Jersey National Flood Insurance Program Coordinator's Office*

Spring 2021 - ISSUE 3 - Floodplain Communicator



Photo Credits-  
Superstorm Sandy Mantoloking Breach, FEMA P-942 Mitigation Assessment Team Report  
Hurricane Sandy in New Jersey and New York

Rt 287, Boonton – Steve Hockstein for the New Jersey Star Ledger

# Instructions to Submit Ordinance

- Start with either the Coastal or Riverine version on the website
  - If your community has both coastal and riverine characteristics, use the coastal version
- Track your changes in Word when completing your community's updates.
- If you need to change the numbering, please **use the ordinance worksheet** discussed in a couple slides to ensure all cross references were updated
- Double check **reference tables** before removing any language. Removal of language is dependent on NFIP regulations, State regulations and floodplain characteristics including State regulated unmapped floodplains
- Email filled in ordinance to the DEP and FEMA for their review as a Word document, **not PDF**. Contacts are on the next slide.
- After it is reviewed, and requested changes are accepted, the ordinance may be introduced
- After adoption, two signed and sealed copies need to be sent to the DEP, address is on the next slide. Additionally, email a signed virtual copy prior to the deadline.



**FEMA**



# Contacts and Address for Signed and Sealed Copies

## *Email Ordinance Submittals to:*

**Rebecca Jones, CFM**

NJDEP, NJ State NFIP  
Coordinator's Office

[Rebecca.Jones@dep.nj.gov](mailto:Rebecca.Jones@dep.nj.gov)

**Tonya Evans**

Floodplain Management Specialist,  
FEMA Region II

[tonya.evans@fema.dhs.gov](mailto:tonya.evans@fema.dhs.gov)

**Kenya Lovill**

NJDEP, NJ State NFIP  
Coordinator's Office

[Kenya.Lovill@dep.nj.gov](mailto:Kenya.Lovill@dep.nj.gov)

## *Send 2 signed and sealed copies to:*



**FEMA**

New Jersey Department of Environmental Protection  
Division of Resilience Engineering and Construction  
PO Box 420 Mail Code 44-03 A  
Trenton, NJ 08625-0420  
Attn: Ordinances



# Supplemental Documents: Numbering Worksheet

MCCO					
Column A	Column B	Column C	Column D	Column E	Column F
Section Name	Original Section #	New Section #	Cross Reference Change Needed	New Reference	Verified Cross Section Change
<b>SECTION 1. Recitals</b>					
Scope and Administration	101				
Title	101.1				
Scope	101.2				
			102		
Purposes and objectives	101.3				
Coordination with Building Codes	101.4				
Ordinary Building Maintenance and Minor Work	101.5				
			102.3		
Warning	101.6				

## SECTION 101 SCOPE AND ADMINISTRATION

**101.1 Title.** These regulations, in combination with the flood provisions of the Uniform Construction Code (UCC) N.J.A.C. 5:23 (hereinafter “Uniform Construction Code,” consisting of the Building Code, Residential Code, Rehabilitation Subcode, and related codes, and the New Jersey Flood Hazard Area Control Act (hereinafter “FHACA”), N.J.A.C. 7:13, shall be known as the *Floodplain Management Regulations of {name of community}* (hereinafter “these regulations”).

**101.2 Scope.** These regulations, in combination with the flood provisions of the Uniform Construction Code and FHACA shall apply to all proposed development in flood hazard areas established in **Section 102** of these regulations.



# Supplemental Documents: Numbering Worksheet

MCCO					
Column A	Column B	Column C	Column D	Column E	Column F
Section Name	Original Section #	New Section #	Cross Reference Change Needed	New Reference	Verified Cross Section Change
<b>SECTION 1. Recitals</b>					
Scope and Administration	101				
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Scope	101.2		102		
Purposes and objectives	101.3				
Coordination with Building Codes	101.4				
Coordination with Building Maintenance and Work	101.5				
			102.3		
Abrogation and greater restrictions	101.9				
Applicability	102				
General	102.1				
Establishment of Flood Hazard Areas	102.2				
	102.2(1)				
			Table 102.2(1)		
	Table 102.2(1)				
			Table Heading 102.2(1)		
	Table 102.2(2)				
			Table Heading 102(2)		

Scroll down to see new number...

regulations”).

**101.2 Scope.** These regulations, in combination with the flood provisions of the Uniform Construction Code and FHACA shall apply to all proposed development in flood hazard areas established in **Section 102** of these regulations.



# Supplemental Documents: Reference Tables

- Break down of each section of the ordinances, indicates which regulations the language has been taken from
- Broken up into 3 tables for section 100, definitions (section 200), and then sections 300 through the end.

401.5	<b>Storm drainage.</b> Storm drainage shall be designed to convey the flow of surface waters to minimize or eliminate damage to persons or property.	FEMA MCCO	
401.6	<b>Streets and sidewalks.</b> Streets and sidewalks shall be designed to minimize potential for increasing or aggravating flood levels.	FEMA MCCO	
401.7	<b>Limitations on placement of fill.</b> Subject to the limitations of these regulations, fill shall be designed to be stable under conditions of flooding including rapid rise and rapid drawdown of floodwater, prolonged inundation, and protection against flood-related erosion and scour. In addition to these requirements, when intended to support buildings and structures (Zone A only), fill shall comply with the requirements of the UCC (N.J.A.C. 5:23). Proposed fill and encroachments in flood hazard areas shall comply with the flood storage displacement limitations of N.J.A.C. 7:13.	FEMA MCCO NJAC 7:13-11.3, 11.4, 12.3	
401.8	<b>Limitations on sites in coastal high hazard areas (V Zones) and Coastal A Zones.</b> In coastal high hazard areas and Coastal A Zones, alteration of sand dunes shall be permitted only when the engineering analysis required by Section 105.3(4) of these regulations demonstrates that the proposed alteration will not increase the potential for flood damage. Construction or restoration of dunes under or around elevated buildings and	FEMA MCCO, ASCE 24-14 4.3.3 NJAC 7:7	



# Link to Ordinances and Supplemental Documents

- The ordinances and supplemental documents can be found on our website here: <https://www.nj.gov/dep/floodcontrol/modelord.htm>
- There is a brief description of the ordinance and how to use it, and at the bottom you will find links for the documents

## ORDINANCES AND SUPPLEMENTAL DOCUMENTS

### Coastal Model Code Coordinated Ordinance

- [Download Coastal Model](#)

### Riverine Model Code Coordinated Ordinance

- [Download Riverine Model](#)

### Reference Tables

Below is a link to the reference tables that supplement the ordinances. They are a break down of each section of the ordinances and indicate which regulations the language has been taken from. It is broken down into 3 tables for section 100, definitions (section 200), and then sections 300 through the end.

- [Section 100](#)
- [Definitions](#)
- [Section 300 through end](#)

### Ordinance Worksheet

Below is a link to the Ordinance Worksheet which can be used to ensure all community specific information has been updated, all cross sections and numbering is correct, and all optional higher standards have been included or removed.

- [Ordinance Worksheet](#)



FEMA



# Frequently Asked Questions

- Where can I find my communities date of regular program entry? (Whereas # 3, and Section 102.2)
  - FEMA's Community Status Book for New Jersey ("Reg-Emer Date")  
<https://www.fema.gov/cis/NJ.html>
- Where can I find the effective and preliminary flood insurance rate maps (FIRMs) for my community? (Section 102.2 (1) and (2))
  - FEMA's Maps Service Center by searching all products  
<https://msc.fema.gov/portal/home>
- How do I know if my community has state studied streams? (Section 102.2 (4))
  - Follow these instructions to download plans and profiles of state studied streams from the DEPs GIS Website  
<https://www.nj.gov/dep/floodcontrol/docs/flood-plans-and-flood-profiles.docx>
  - Flood Plan Locator – can search community name  
<https://njdep.maps.arcgis.com/home/item.html?id=9ef439b13cd54693840967a237e6b520>
  - Flood Profile Locator – can search community name  
<https://njdep.maps.arcgis.com/home/item.html?id=67578724c67b4c57a5b566dfa886df48>



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# Resources

- NJ Model Flood Damage Prevention Ordinance  
<https://www.nj.gov/dep/floodcontrol/modelord.htm>
- NJ Model Floodplain Development Permit  
<https://www.nj.gov/dep/floodcontrol/model-floodplain-permit.htm>
- NJ Local Design Flood Elevation Worksheet  
<https://www.nj.gov/dep/floodcontrol/links.htm>
- NJ Substantial Damage Management Plan Template  
<https://www.nj.gov/dep/floodcontrol/docs/njsdmp-tempate.docx>
- NJ Floodplain Communicator – Quarterly Newsletter
  - <https://www.nj.gov/dep/floodcontrol/newsletters.htm>



**FEMA**



# Questions?



**FEMA**



# Contacts

Kenya Lovill

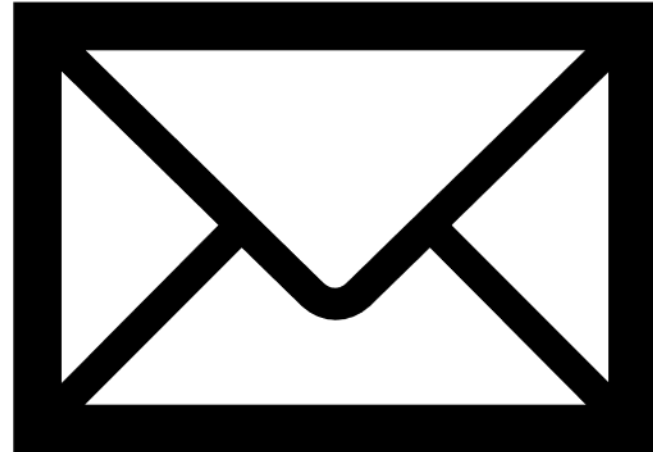
NJDEP, NJ State NFIP Coordinator's  
Office

[Kenya.Lovill@dep.nj.gov](mailto:Kenya.Lovill@dep.nj.gov)

Rebecca Jones, CFM

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Office

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ENVIRONMENTAL  
PROTECTION**