



# 24 CFR PART 55: FLOODPLAIN MANAGEMENT & WETLANDS PROTECTION

MARCH 31, 2020

“FLOODS ARE ACTS OF GOD, BUT FLOOD LOSSES ARE LARGELY ACTS OF MAN.”

–Gilbert White, Ph.D., Father of Floodplain Management

Dial in number: 1-929-205-6099 | Webinar ID: 730-675-117#

Introduction: Marcel Tchaou, Director, Environmental Planning Division, HUD Office of  
Environment & Energy

HUD OEE Presenter: Liz Zepeda, Senior Environmental Specialist

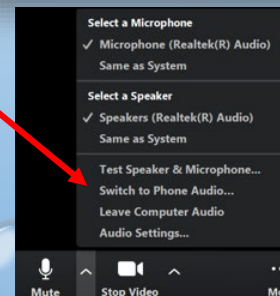
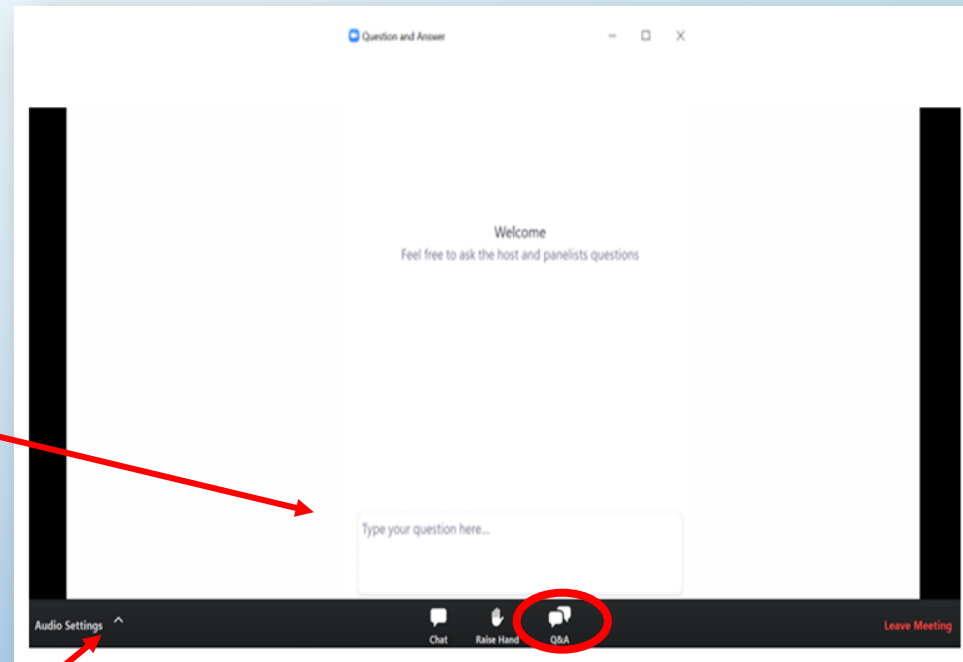
TA Provider: Enterprise Community Partners, Inc.

# WELCOME

- WEBINAR INFORMATION

- **DIAL IN NUMBER: 1-929-205-6099 | WEBINAR ID: 730-675-117#**

- Thank you for joining us!
- The webinar will begin **promptly at 1pm EST.**
- All attendees will be muted.
- Please use the **Q&A panel** on the bottom of your screen to ask questions.
- For **best audio quality**, please listen to the webinar **via phone line** by using the dial-in number provided.
- To switch from computer audio to phone audio, follow these steps:



# AGENDA



Introduction to Part 55



Floodplain terminology & overview



*How to:* Map the floodplain



Wetlands terminology & overview



*How to:* Map the wetland



*How to:* Determine next steps



*How to:* Conduct the 8-Step Process

- Questions submitted through the Q&A panel will be answered *after* the webinar has ended
- Discuss questions about specific projects with the local Field or Regional Environmental Officer

# HUD'S FLOODPLAIN AND WETLAND REGULATIONS

24 CFR Part 55 “Floodplain Management and Wetland Protection”

- Implements Executive Order 11988 for Floodplain Management
- Implements Executive Order 11990 for Protection of Wetlands
  - Updated in 2013 to include Protection of Wetlands





# PURPOSE OF PART 55

To avoid the long- and short- term adverse impacts associated with:

- Occupancy and modification of floodplains
- Destruction or modification of wetlands

Avoid direct or indirect support for floodplain development or new construction in wetlands wherever there is a *practicable alternative*



# FULL COST OF FLOODING



- Direct economic losses: buildings, contents
- Indirect losses: relocation costs, temporary housing, lost wages, health risks
- Low-income Americans are more likely than the middle class to live in floodplains
  - They are also less likely to recover from the loss of their home or job

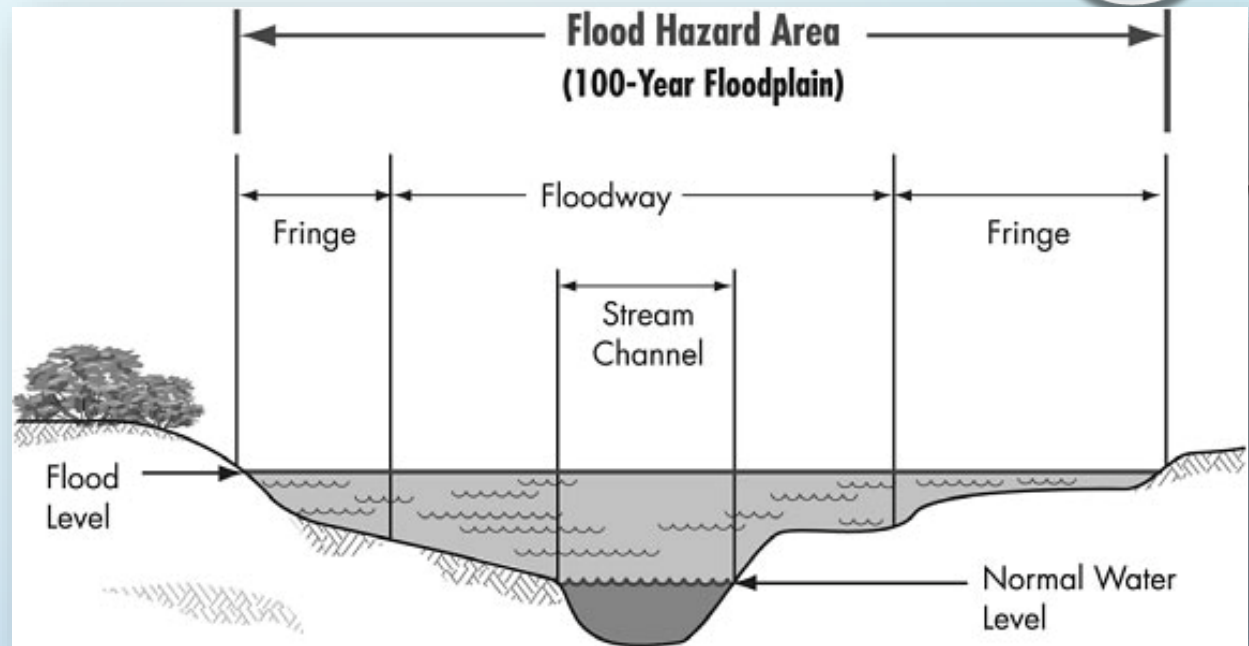
# FLOODPLAIN TERMINOLOGY



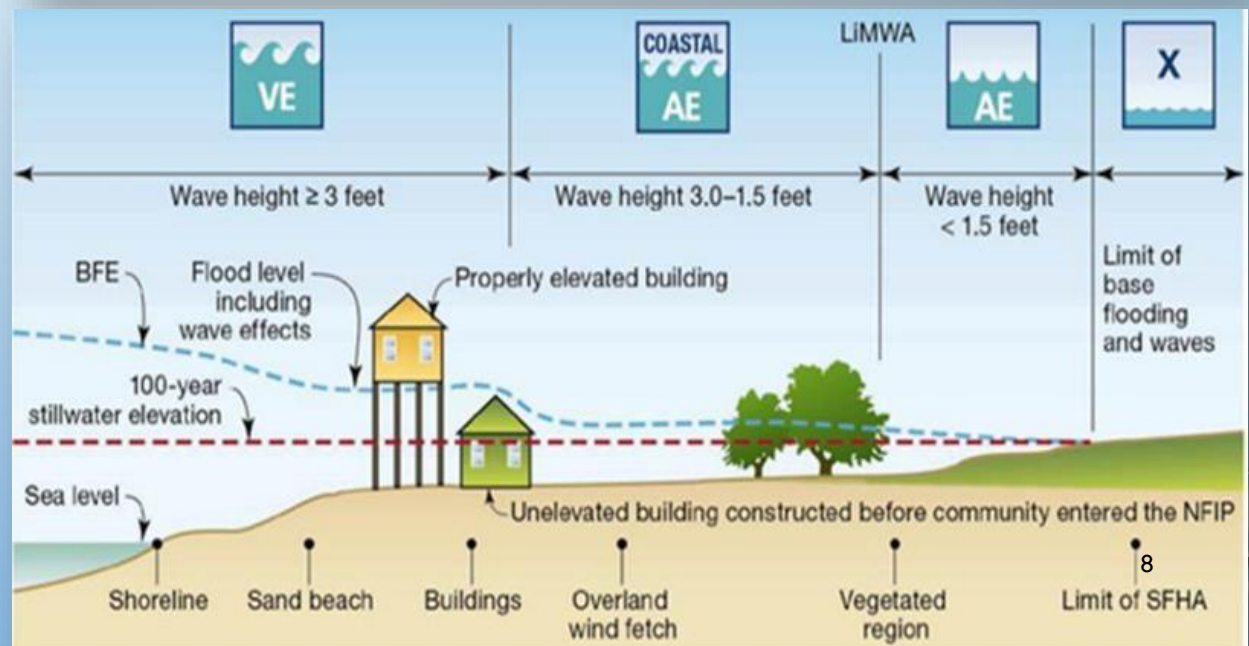
Reminder: questions submitted through the Q&A panel will be answered after the webinar has ended

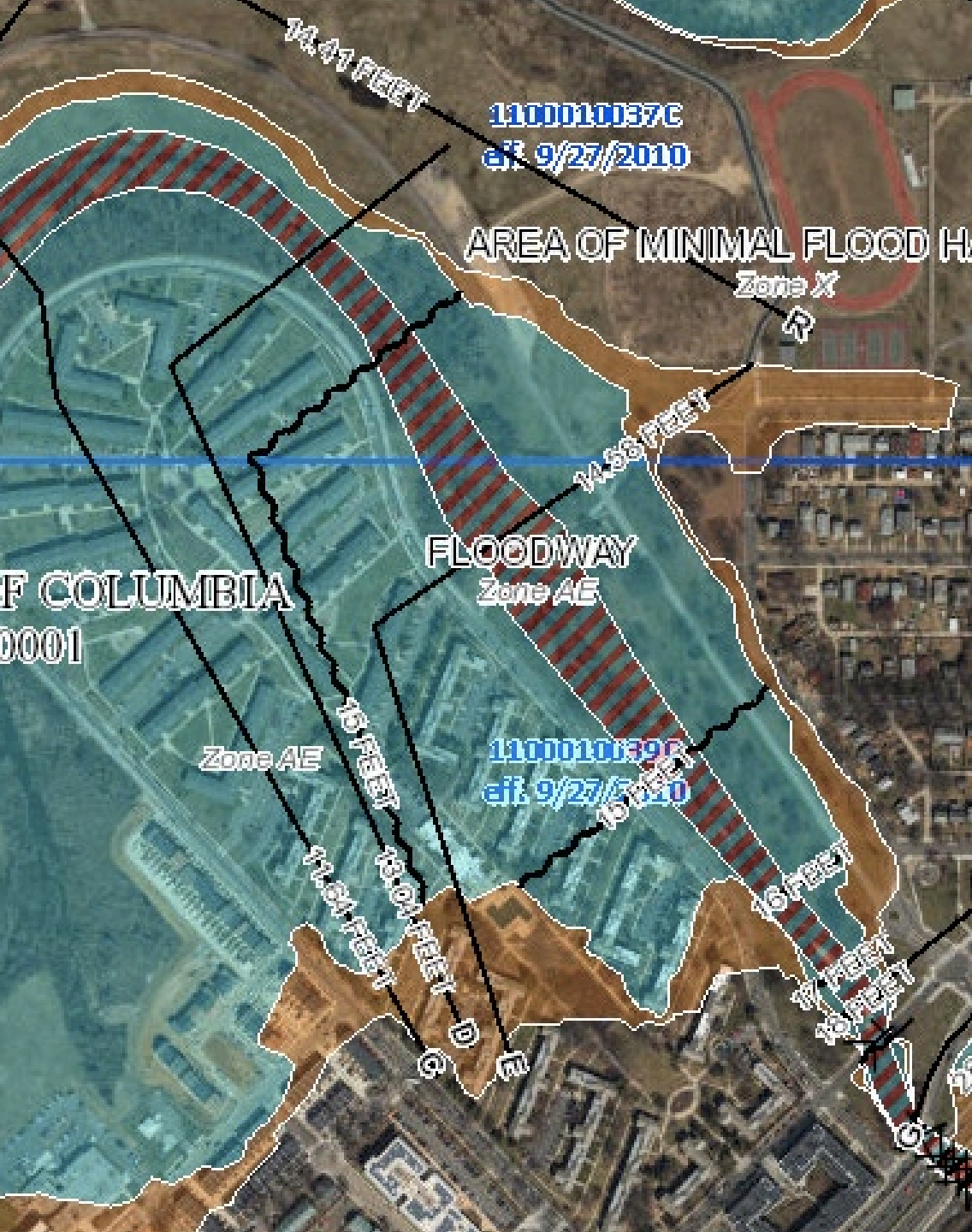


# Riverine Floodplains



# Coastal Floodplains





## IDENTIFYING FLOODPLAINS

- HUD relies on the Federal Emergency Management Agency (FEMA) to identify floodplains
- FEMA generates Flood Insurance Rate Maps (FIRMs) that map floodplains
- See 24 CFR 55.2 for HUD's definitions

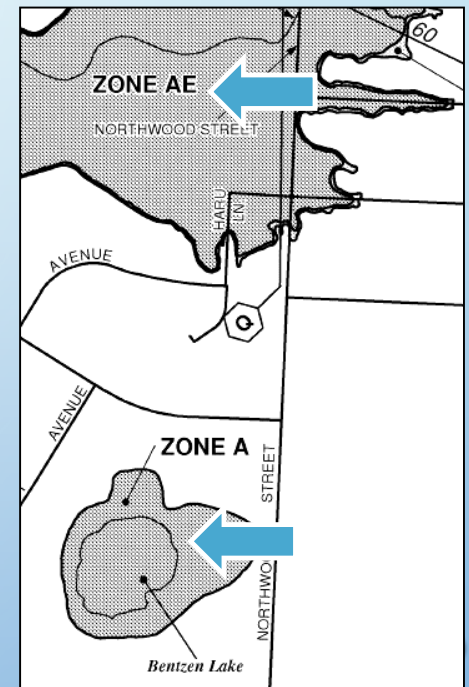


# 100-YEAR FLOODPLAIN

100-year floodplain = an area with at least a one percent chance of inundation from flood in any given year

- Also known as 1% annual chance flood
  - These areas have at least a 26% chance of flooding over the life of a 30-year mortgage
- The minimum floodplain of concern for most HUD projects
- FEMA designates as Zone A, AE, A1-A30, AO, AH, or A99
- Current FEMA maps are not forward-looking: future effects of population growth and climate change are not taken into consideration
  - Actual risk may increase as maps age

# 100-YEAR FLOODPLAINS



# 500-YEAR FLOODPLAIN

500-year floodplain = an area with at least a .2 percent chance of inundation from flood in any given year

- Also known as .2% annual chance flood
  - These areas have at least a 6% chance of flooding over the life of a 30-year mortgage (if maps perform accurately)
- The minimum floodplain of concern for “critical actions”
- FEMA designates as Zone B or X (shaded)



# 500-YEAR FLOODPLAINS



# FLOODWAYS

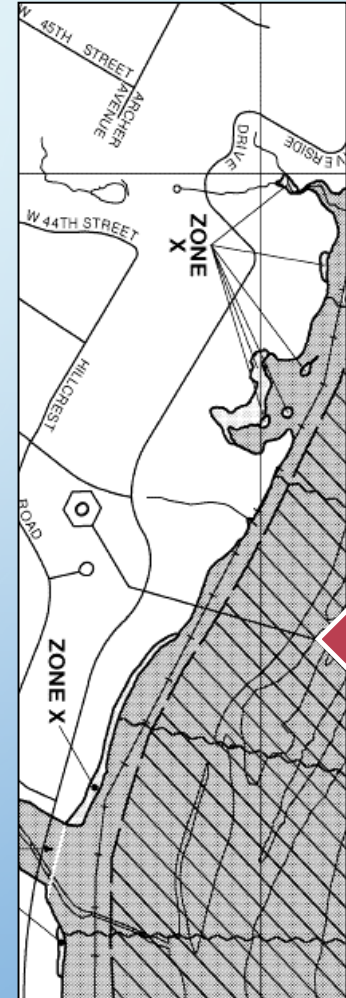
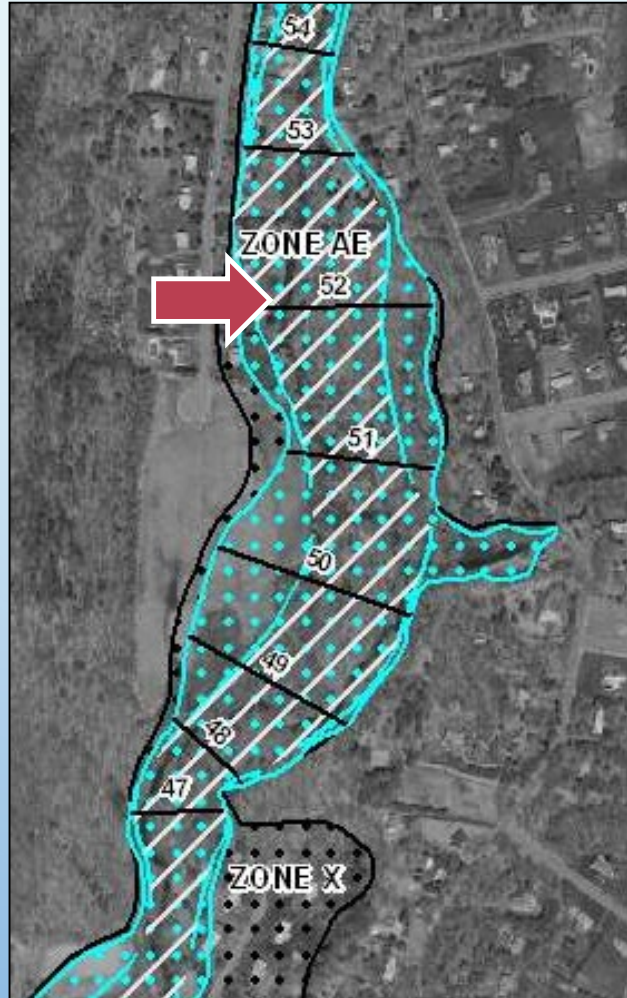
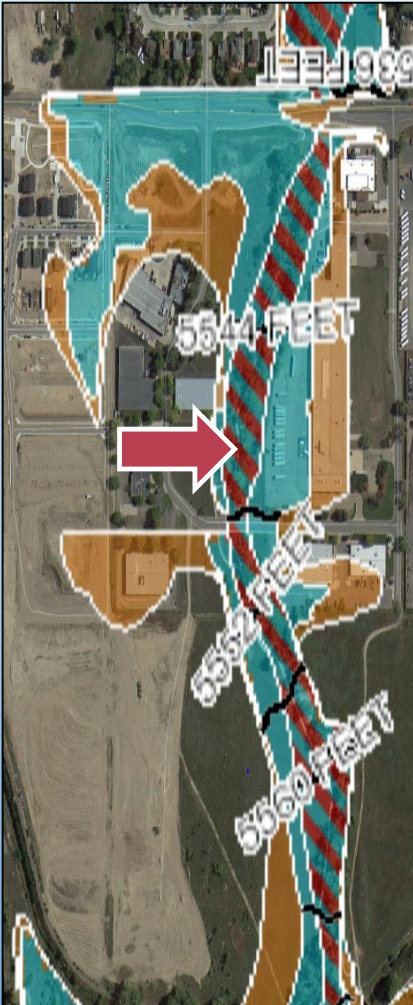
Floodway = the portion of the floodplain which is effective in carrying flow, where flood hazards are generally greatest, and where water depths and velocities are the highest

- FEMA designates as Zone AE hatched
- **No HUD assistance** may be approved for use in a floodway, except in very limited circumstances





# FLOODWAYS



# COASTAL HIGH HAZARD AREAS

Coastal High Hazard Area = the area subject to high velocity waters, including – but not limited to – hurricane wave wash and tsunamis

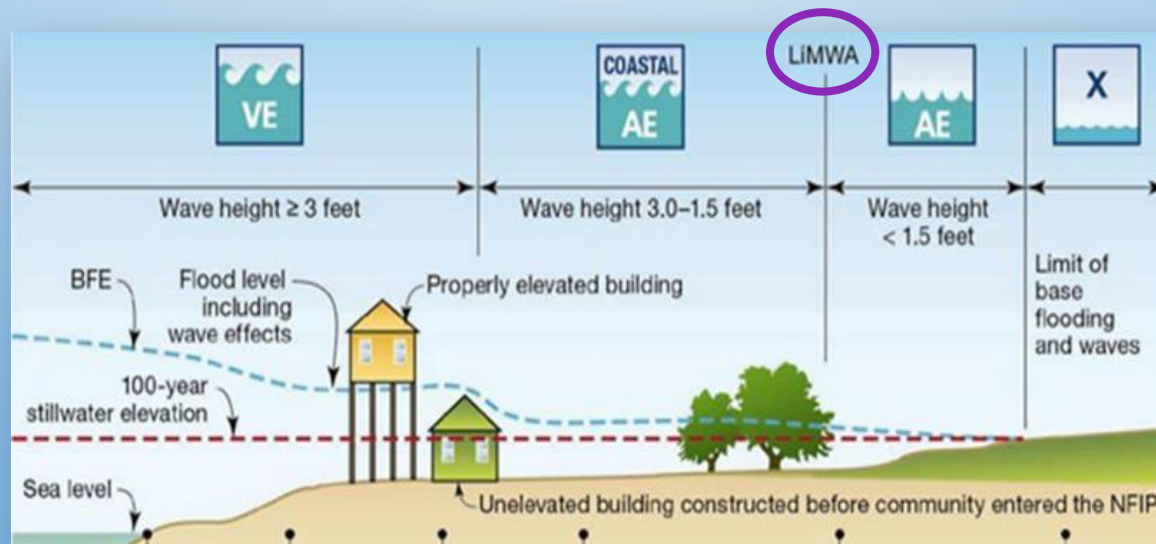
- FEMA designates as Zone V
- Also known as “V Zones”
- **No HUD assistance** may be used for new construction or critical actions in Coastal High Hazard Areas



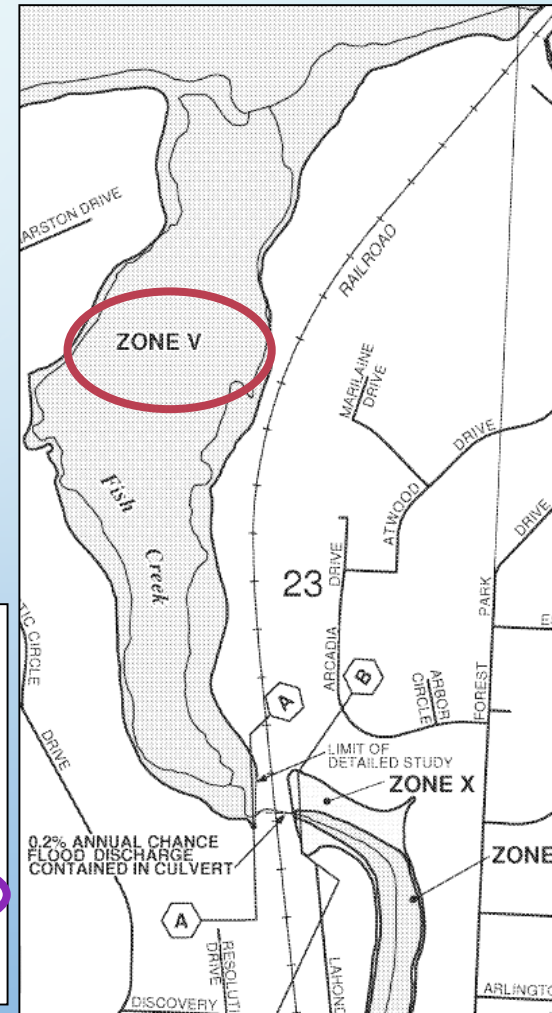
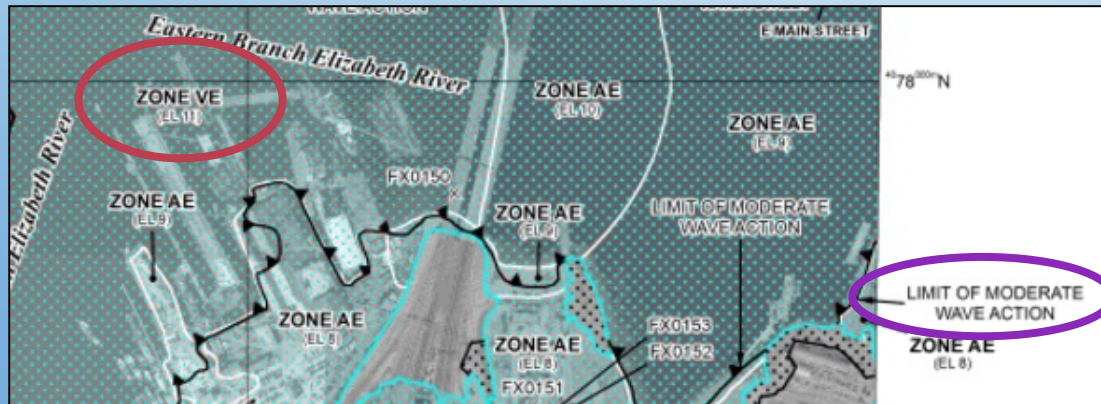
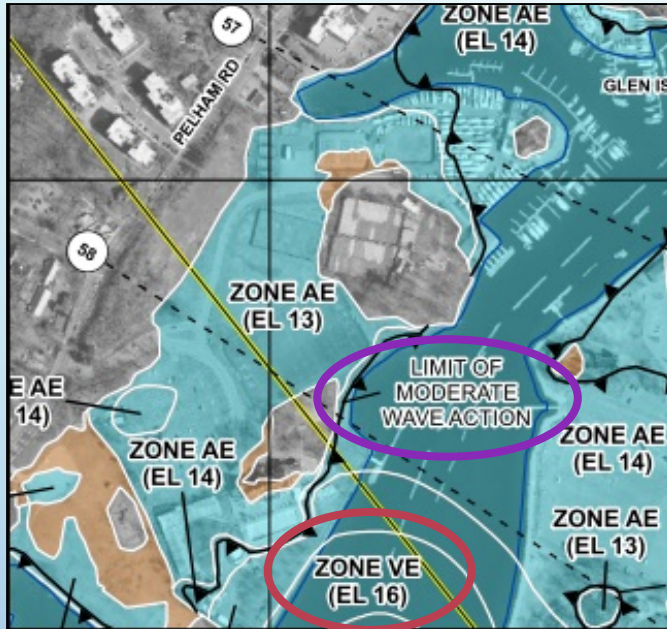


# LIMIT OF MODERATE WAVE ACTION

- Limit of Moderate Wave Action (LiMWA): A line that has been added to recent FIRMs in coastal areas to give more information on flood risks
  - The line indicates areas that are outside of the V Zone but which may be affected by breaking waves higher than 1.5 feet
- Part 55 treats areas within the LiMWA as A Zones/100-Year Floodplain
  - However, HUD/REs are encouraged to treat these areas the same as a V Zone



# COASTAL HIGH HAZARD AREAS





# SUNNY DAY FLOODING

- High tide flooding & nuisance flooding: flooding caused by high tides or regular rain unrelated to a strong storm
- Regular impacts include flooded roads and parking lots, disruptions to local businesses and transportation, deteriorating infrastructure, and saltwater spilled to farmlands
- Part 55 does not have any requirements related specifically to these types of floods





# CRITICAL ACTIONS



Critical action (§ 55.2(b)(3)) - any activity for which even a slight chance of flooding would be too great, because such flooding might result in loss of life, injury to persons, or damage to property

Critical actions include projects that:

- Produce, use or store highly volatile, flammable, explosive, toxic or water-reactive materials
- Provide essential and irreplaceable records or utility/emergency services
  - e.g. utility lines, fire and police stations, roadways providing sole egress
- Are likely to contain occupants who may not be sufficiently mobile to avoid loss of life or injury during flood or storm events
  - e.g. hospitals, nursing homes
  - Housing for independent living for the elderly is not considered a critical action

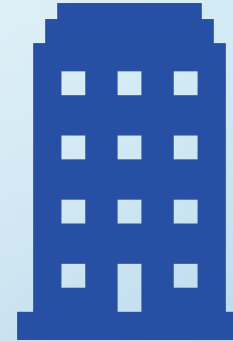
# FUNCTIONALLY DEPENDENT USE

Functionally dependent use (§55.2(b)(6)) - a land use that must necessarily be conducted in close proximity to water

- Dams, marinas, port facilities, water-front parks, and many types of bridges
- Floodplain function restoration activities



# SUBSTANTIAL IMPROVEMENT



## **Substantial Improvement**

**(§ 55.2(b)(10))**

Repairs/rehab/reconstruction where the cost of improvements  $\geq$  50% of market value of structure either:

- Before improvements started, or
- Before damage occurred (if structure has been damaged)

**OR**

Repairs/rehab/reconstruction that results in  $> 20\%$  increase in dwelling units or customers/employees on site

# NOT SUBSTANTIAL IMPROVEMENT



Substantial improvement does *not* include:

- Improvements done entirely to comply with state/local health or safety code that are solely necessary to assure safe living conditions
- Alterations to structures listed on the national register of historical places or on a state inventory of historic places



# OVERVIEW OF PART 55 FLOODPLAIN REQUIREMENTS



Reminder: questions submitted through the Q&A panel will be answered after the webinar has ended



# PART 55 HIGHLIGHTS

- Prohibits nearly all HUD assistance in floodways and most construction in coastal high hazard areas
- Requires an 8-step decisionmaking process for:
  - Most projects in a 100-year floodplain
  - Critical actions in the 100- or 500-year floodplain
  - Functionally dependent uses in a floodway or coastal high hazard area
- Provisions to modify or skip the 8-step process for some activities

# 24 CFR 55.21



## §55.21 Notification of Floodplain Hazards

- Any current or prospective tenants and private parties participating in the transaction must be informed of the hazards before the transaction is executed
- HUD/RE is responsible for providing notice

# HUD ASSISTANCE IN 100-YEAR FLOODPLAIN

**All actions** are allowed in the **100-year floodplain** if 8-Step Process is completed and **no practicable alternatives** are found





# HUD ASSISTANCE IN 500-YEAR FLOODPLAIN

- **Non-critical actions** are allowed in the **500-year floodplain** without the 8-step process
- **Critical actions** are allowed in the **500-year floodplain** if:
  - 8-step process is completed; *and*
  - New construction is designed and built at or above the 100-year floodplain (§55.20(e)(3)); *and*
  - Mitigation includes special provisions in §55.20(e)(3)



# HUD ASSISTANCE IN FLOODWAY

HUD assistance is prohibited in a floodway for all projects except:

- Functionally dependent uses (8-Step Process required)
- Floodplain function restoration activities
- Projects exempt from part 55 under 55.12(c)



# HUD ASSISTANCE IN COASTAL HIGH HAZARD AREA

**Critical actions** are prohibited

**Non-critical actions** allowed if the project is:

- Existing structure or reconstruction following damage from a disaster, *and*
- 8-step process is completed, *and*
- Project is designed for location in a coastal high hazard area
  - See 55.2(c)(3) for construction standards





# APPLICABILITY – §55.11(C)

Type of proposed action (new reviewable action or an amendment) <sup>1</sup>	Type of proposed action			
	Floodways	Coastal high hazard areas	Wetlands or 100-year floodplain outside coastal high hazard area and floodways	Nonwetlands area outside of the 100-year and within the 500-year floodplain
Critical Actions as defined in §55.12(b)(2)	Critical actions not allowed.	Critical actions not allowed.	Allowed if the proposed critical action is processed under §55.20. <sup>2</sup>	Allowed if the proposed critical action is processed under §55.20. <sup>2</sup>
Noncritical actions not excluded under §55.12(b) or (c)	Allowed only if the proposed non-critical action is a functionally dependent use and processed under §55.20. <sup>2</sup>	Allowed only if the proposed noncritical action is processed under §55.20 <sup>2</sup> and is (1) a functionally dependent use, (2) existing construction (including improvements), or (3) reconstruction following destruction caused by a disaster. If the action is not a functionally dependent use, the action must be designed for location in a Coastal High Hazard Area under §55.1(c)(3)	Allowed if proposed noncritical action is processed under §55.20. <sup>2</sup>	Any noncritical action is allowed without processing under this part.

# HOW TO: MAP THE FLOODPLAIN



Reminder: questions submitted through the Q&A panel will be answered after the webinar has ended

# MAPPING THE FLOODPLAIN

Flood Insurance Rate Map (FIRM) : official map used to determine flood insurance requirements and rates

- Flood Insurance Study (FIS): background analysis and more precise elevation information
- Letters of Map Revision (LOMR): official revision to the effective FIRM

If FEMA has provided interim flood hazard data (e.g. advisory base flood elevations, preliminary maps, or pending maps), Part 55 requires the use of the map with the highest standards

- See 55.2(b)(1) (the definition of *coastal high hazard area*) for best available information requirements

Make sure to check for latest maps!



# UNMAPPED AREAS

If project area is **unmapped** by FEMA, utilize “*best available information*”

- FEMA community status book  
<https://msc.fema.gov/>
- U.S. Corps of Engineers
- Community flood administrators
- U.S. Geological Survey maps
- Soils maps (e.g., alluvial soils) -  
USDA natural resources
- Conservation service
- State departments of water  
resources
- County public works
- Local flood control or levee districts
- Contract survey or study by licensed  
consulting engineer
- Supplement above with aerial  
photos, topographic maps, site visit
- **Preliminary FIRMs must be used  
except where it can be  
demonstrated that they are  
insufficiently detailed**

# FLOODPLAIN DESIGNATIONS

## 100-Year

Zone A (A, AE, A1-A30, AO, AR, A99)

## Floodway

Zone AE  
hatched

## Not in Floodplain

Zone C, Zone X  
unshaded

## 500-Year

Zone B, Zone X  
shaded

## Coastal High Hazard Area

Zone V

## Undetermined

Zone D

# Search Results—Products for NEW YORK, CITY OF

[Show ALL Products »](#)

The flood map for the selected area is number **3604970378F**, effective on **09/05/2007** ?

## DYNAMIC MAP



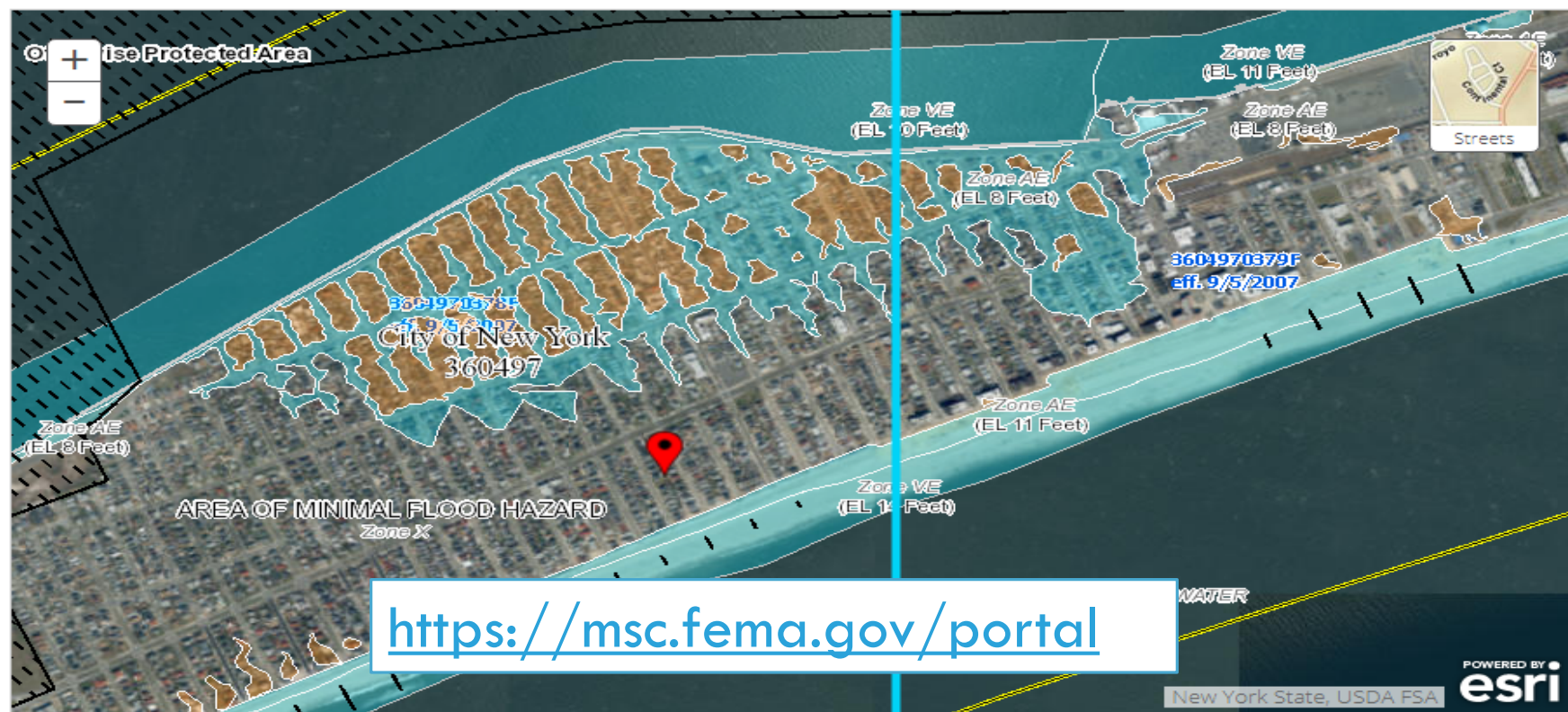
## MAP IMAGE



## Changes to this FIRM

- Revisions (0)
- Amendments (16)
- Revalidations (1)

You can choose a new flood map or move the location pin by selecting a different location on the locator map below or by entering a new location in the search field above. NOTE: Please be sure to enable popups for this site.



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

MAP PANELS	
<input type="checkbox"/>	Digital Data Available
<input type="checkbox"/>	No Digital Data Available
<input checked="" type="checkbox"/>	Unmapped
<input type="checkbox"/>	Area of Minimal Flood Hazard Zone X

SPECIAL FLOOD HAZARD AREAS	
	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth
	Regulatory Floodway Zone AE, AO, AH, VE, V
	0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage

	20.2	Cross Sections with 1% Annual Chance Water Surface Elevation
	17.5	Coastal Transect
	15.0	Base Flood Elevation Line (BFE)
	12.5	Limit of Study
	10.0	Jurisdiction Boundary
	7.5	Coastal Transect Baseline



# National Flood Hazard Layer FIRMette



FEMA

40°34'40.30"N



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

## Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth
		Regulatory Floodway Zone AE, AO, AH, VE, AR
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
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/4/2018 at 1:59:56 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.





The flood map for the selected area is number **3604970378F**, effective on **09/05/2007** ?

## DYNAMIC MAP



PRINT MAP/  
FIRMette

## MAP IMAGE



DOWNLOAD  
FIRM PANEL

## Changes to this FIRM

- Revisions (0)
- Amendments (16)
- Revalidations (1)

You can choose a new flood map or move the location pin by selecting a different location on the locator map below or by entering a new location in the search field above. NOTE: Please be sure to enable popups for this site.



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**Please Note:** Searching All Products by county displays all products for all communities within the county. You can refine your search results by specifying your specific jurisdiction location using the drop-down menus above.

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DL ALL

**Please note:** Searches often result in many map files listed under a given section. You can determine the Product ID for the individual map panel needed by looking at the Map Index file. The index map files have "IND" within the Product ID and appear at the start of the list. These index files show an overview of a jurisdiction and how it is subdivided into map panels with the Product ID for each panel shown.

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Showing 1 to 100 of 120 entries











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3604970043G	12/05/2013	2 MB	 DL
3604970069G	12/05/2013	3 MB	 DL
3604970077G	12/05/2013	2 MB	 DL



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**RICHMOND COUNTY:**  
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10 Richmond Terrace  
Borough Hall, 2nd Floor  
Staten Island, New York 10301

FEMA maintains information about map features, such as street locations and names, in or near designated flood hazard areas. Requests to revise flood information in or near designated flood hazard areas may be provided to FEMA during the community review period, at the final Consultation Coordination Officer's meeting, or during the statutory 90-day appeal period. Approved requests for changes will be shown on the final printed FIRM.

-NOTE-  
Designated coastal barriers are located on  
panels 219, 236, 238, 239, 243, 244, 354,  
356, 357, 358, 359, 362, 366, 367, 376,  
377, 378, 379, 381, and 382.



Show **100** entries




















Showing 101 to 120 of 120 entries

Previous

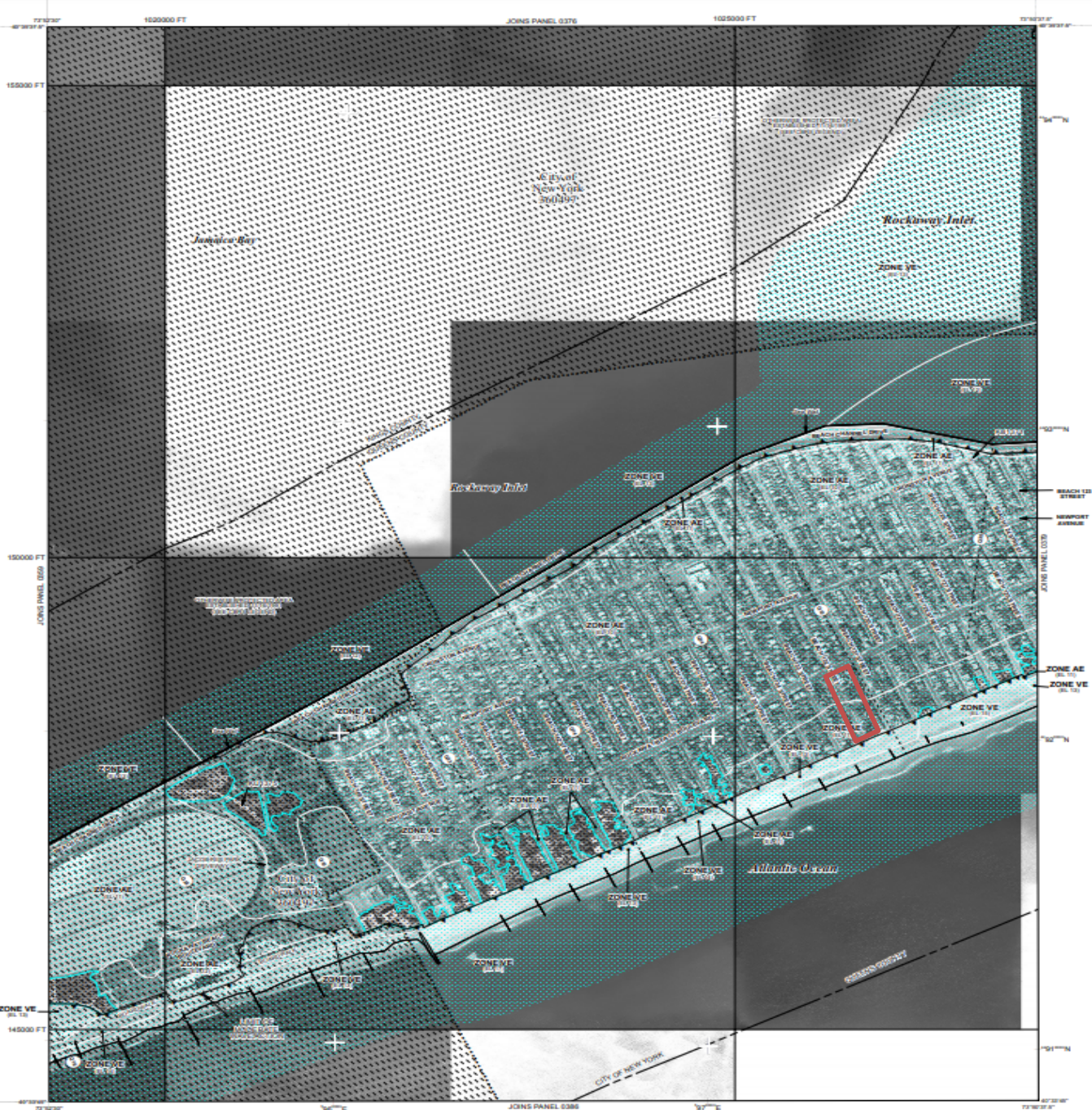
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**2**

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3604970357G	12/05/2013	5 MB	 DL
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3604970359G	12/05/2013	5 MB	 DL
3604970362G	12/05/2013	1 MB	 DL
3604970366G	12/05/2013	4 MB	 DL
3604970367G	12/05/2013	2 MB	 DL
3604970376G	12/05/2013	4 MB	 DL
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# **SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual flood (100-year flood) area shown on this map is the flood that has a 1% chance of being equalled 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 Zone A, AE, AH, AG, AR, AR1, AR2, AR3, AR4, AR5, AR6, AR7, AR8, AR9, AR10, AR11, AR12, AR13, AR14, AR15, AR16, AR17, AR18, AR19, AR20, AR21, AR22, AR23, AR24, AR25, AR26, AR27, AR28, AR29, AR30, AR31, AR32, AR33, AR34, AR35, AR36, AR37, AR38, AR39, AR40, AR41, AR42, AR43, AR44, AR45, AR46, AR47, AR48, AR49, AR50, AR51, AR52, AR53, AR54, AR55, AR56, AR57, AR58, AR59, AR60, AR61, AR62, AR63, AR64, AR65, AR66, AR67, AR68, AR69, AR70, AR71, AR72, AR73, AR74, AR75, AR76, AR77, AR78, AR79, AR80, AR81, AR82, AR83, AR84, AR85, AR86, AR87, AR88, AR89, AR90, AR91, AR92, AR93, AR94, AR95, AR96, AR97, AR98, AR99, AR100.

- ZONE A:** No Base Flood Elevation determined. Base Flood Elevation determined.
- ZONE AE:** Flood depths of 1 to 3 feet (usually areas of ponding). Base Flood Elevation determined.
- ZONE AH:** Flood depths of 1 to 3 feet (usually areas of ponding). Base Flood Elevation determined.
- ZONE AG:** Flood depths of 1 to 3 feet (usually areas of ponding). Base Flood Elevation determined.
- ZONE AR:** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently determined to be inadequate. The flood control system is being removed to provide protection from the 1% annual chance flood.
- ZONE AR1 through AR100:** Areas to be protected from 1% annual chance flood by a Federal flood protection system under construction. No Base Flood Elevation determined.
- ZONE V:** Coastal Flood zone with velocity hazard (wave action). No Base Flood Elevation determined.
- ZONE VE:** Coastal Flood zone with velocity hazard (wave action). No Base Flood Elevation determined.
- ZONE X:** Floodway Areas in Zone AE.

**OTHER FLOOD AREAS**  
Areas of 0.2% annual chance flood, areas of the 1% annual chance flood with average depths of less than 1 foot or with average areas less than 1 square mile, and areas protected by levees from the 1% annual chance flood.

**OTHER AREAS**  
Areas determined to be outside the 0.2% annual chance flood boundary. Areas in which flood depths are not determined, but possible.

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**  
CBRS areas are CBRSs, areas located within or adjacent to Special Flood Hazard Areas.

**OTHERWISE PROTECTED AREAS (OPAs)**  
Areas determined to be outside the 0.2% annual chance flood boundary. Areas in which flood depths are not determined, but possible.

**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 0378G**

**FIRM**

**FLOOD INSURANCE RATE MAP**

**CITY OF, NEW YORK, NEW YORK**  
BRONX, RICHMOND, NEW YORK, QUEENS, AND KINGS COUNTIES

**PANEL 378 OF 457**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

**PRELIMINARY**  
**DECEMBER 5, 2013**

**MAP NUMBER**  
3604970378G

**MAP REVISED**

**Federal Emergency Management Agency**







# Comparison of Flood Hazard

Effective & Preliminary Flood Risks



FEMA



Effective	
POI Longitude/Latitude	-73.8494, 40.5749
Effective FIRM Panel	3604970378F
Effective Date	9/5/2007
Flood Zone	X
Static BFE*	Not Available
Flood Depth	Not Available
Vertical Datum	Not Available



Preliminary	
POI Longitude/Latitude	-73.8494, 40.5749
Preliminary FIRM Panel	3604970378G
Preliminary Issue Date	1/30/2015
Flood Zone	AE
Estimated Static BFE*	10.0 Feet
Estimated Flood Depth	Not Available
Vertical Datum	NAVD88

\* A Base Flood Elevation is the expected elevation of flood water during the 1% annual chance storm event. Structures below the estimated water surface elevation may experience flooding.

**Risk Level**  
High Flood Risk

## Flood Hazard Zone

AE, A, AH, AO, VE and V Zones. Properties in these flood zones have a 1% chance of flooding each year. This represents a 26% chance of flooding over the life of a 30-year mortgage.

Moderate Flood Risk

**Shaded Zone X.** Properties in the moderate flood risk areas also have a chance of flooding from storm events that have a less than 1% chance of occurring each year. Moderate flood risk indicates an area that may be provided flood risk reduction due to a flood control system or an area that is prone to flooding during a 0.2% annual chance storm event. These areas may have been indicated as areas of shallow flooding by your community.

# WHAT ABOUT FLOOD INSURANCE?

## Floodplain Management in Part 55

- Implements EO 11988
- HUD's framework to avoid floodplain impacts
- Does not apply to exempt or CENST projects
- Compliance required if best available information, including preliminary maps, indicate project is in a floodplain

## Flood Insurance

- The National Flood Insurance Program (NFIP) implements the Flood Disaster Protection Act
- HUD-assisted projects must comply with requirements set by FEMA, the state, and the locality
- Applies to all levels of review
- Compliance required if a structure is in the floodplain on the current effective FIRM



# IF PROJECT IS IN A FLOODPLAIN...

**If project is in a special flood hazard area, there are three options:**

- **Reject** project site – avoid the flood hazard
- Apply to FEMA for letter of **map amendment or map revision** (LOMA or LOMR) – remove the project from the flood hazard
- Continue the **8-Step Process** – hard look at alternative sites, minimize flood hazards, restore beneficial values of the floodplain

# OVERVIEW OF WETLAND PROTECTION



Reminder: questions submitted through the Q&A panel will be answered after the webinar has ended

# WETLANDS LAWS

Wetlands are primarily protected by **two** authorities that discourage activities in wetlands ...

- **Executive Order 11990, “Protection of Wetlands” (1977):** “**avoid** to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to **avoid** direct or indirect support of new construction in wetlands wherever there is a practicable alternative...”
- **Section 404 of Clean Water Act (1977):** Dredging or filling wetlands (“Waters of the US”) requires a section 404 permit from the Army Corps of Engineers



# EXECUTIVE ORDER 11990



## **Purpose: avoid to the extent possible**

- Long and short-term adverse impacts associated with destruction or modification of wetlands
- Avoid support for new construction in wetlands when there is a practicable alternative



## **Requires federal agencies to take action to:**

- Minimize destruction, loss or degradation of wetlands
- Preserve and enhance natural and beneficial values of wetlands



## **8-step process is required for new construction in wetlands**

# NEW CONSTRUCTION (§ 55.2(b)(8))



## **New construction includes:**

- Draining
- Dredging
- Channelizing
- Filling
- Diking
- Impounding
- Related activities
- Construction of any structures or facilities

# HUD'S WETLANDS DEFINITION

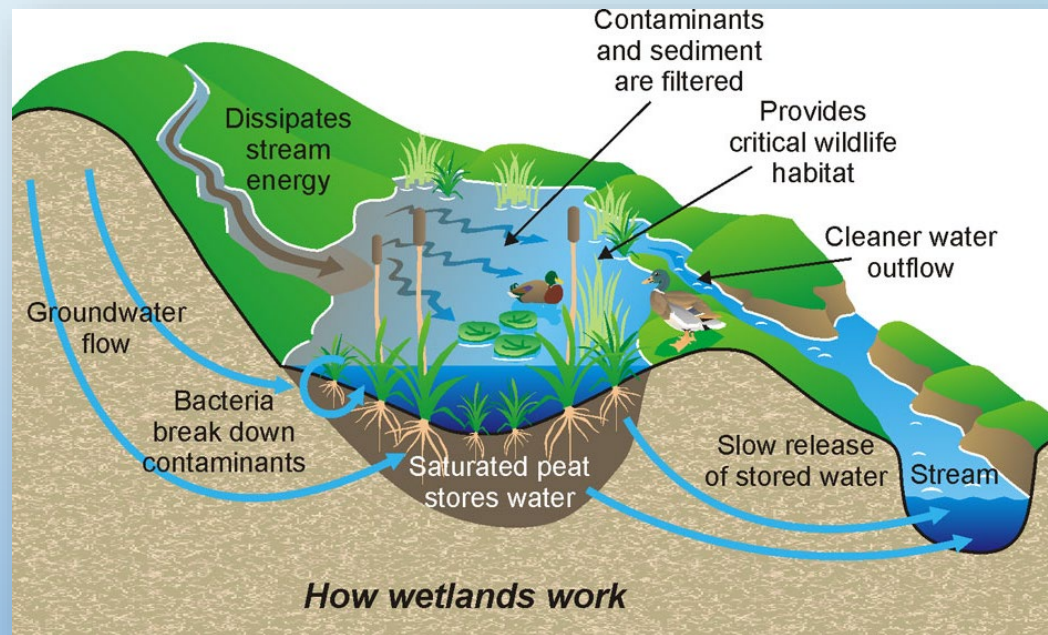
Those areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances does or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds. This definition includes those wetland areas separated from their natural supply of water as a result of activities such as the construction of structural flood protection methods or solid-fill road beds and activities such as mineral extraction and navigation improvements. *This definition includes both wetlands subject to and those not subject to Section 404 of the Clean Water Act as well as constructed wetlands.*

(24 CFR 55.2(b)(11))



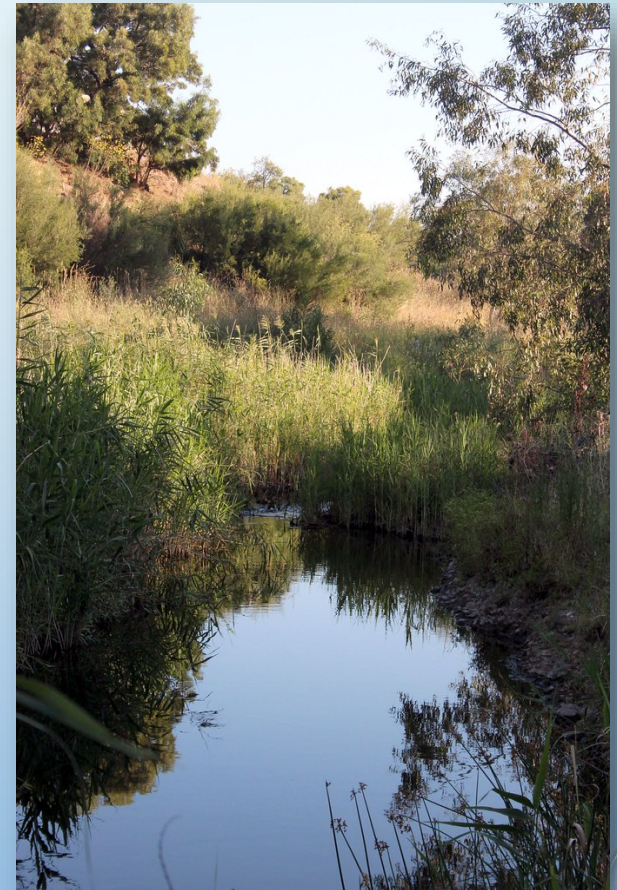
# HOW WETLANDS WORK

- Wetlands may not be wet year-round and, in fact, some of the most important wetlands are seasonally dry
- Often found with or in floodplains
- Wetlands serve many purposes:
  - Act as filters, removing pollutants, including metals, from waters
  - Habitat for great variety of plant and animal species, some endangered, that have evolved to live in the wetland's unique conditions
  - Aquifer recharging
  - Shoreline erosion control
  - Recreation and aesthetics



# REQUIREMENTS SUMMARY

- If the project is determined to impact a wetland:
  - Complete the 8-Step Decisionmaking Process
  - Consult with the US Fish and Wildlife Service
  - Consult with the US Army Corps of Engineers (USACE) to determine if a CWA 404 permit is necessary
- New construction in wetlands must be avoided unless:
  - No practicable alternative
  - Action includes all practicable measures to minimize harm to wetlands



# HOW TO: MAP THE WETLAND



Reminder: questions submitted through the Q&A panel will be answered after the webinar has ended




# MAPPING THE WETLAND

- **National Wetlands Inventory (NWI):** primary screening tool, managed by US Fish and Wildlife Service
- Use NWI to determine if the project is in proximity to wetlands
  - Digital wetlands mapper:  
<http://www.fws.gov/wetlands/data/mapper.Html>
  - Wetlands code interpreter:  
<http://www.fws.gov/wetlands/data/wetland-codes.Html>



# GO TO USFWS WETLAND MAPPER



## U.S. Fish & Wildlife Service National Wetlands Inventory

Google Custom Search




Ecological Services

- ES Home
- About Us
- Species
- Wildlife and Habitat Conservation
- Development and Energy
- FWS Regions
- Library
- Newsroom

### NWI Menu

- NWI Home
- QUICK Links
- Wetlands Data
- Status and Trends
- Wetlands Layer
- Other Topics
- National Wetlands Inventory
- About Us

### Help and Contacts

-  Frequently Asked Questions
-  Contact Us
-  Search Documents and Website

## Wetlands Mapper

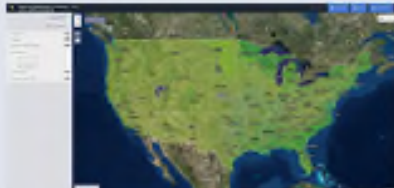
The Wetlands mapper is designed to deliver easy-to-use, map like views of America's Wetland resources. It integrates digital map data along with other resource information to produce current information on the status, extent, characteristics and functions of wetlands, riparian, and deepwater habitats. The Wetland Mapper fulfills the U.S. Fish and Wildlife Service's strategic plan for the development, revision and dissemination of wetlands data and information to resource managers and the public. This information is intended to promote the understanding and conservation of wetland resources through discovery and education as well as to aid in resource management, research and decision making.

The wetlands displayed on the Wetlands Mapper show wetland type and extent using a biological definition of wetlands. There is no attempt to define the limits of proprietary jurisdiction of any Federal, State, or local government, or to establish the geographical scope of the regulatory programs of government agencies.

- 1 Read the [Disclaimer](#), [Data Limitations](#), [Exclusions and Precautions](#), and the [Wetlands Geodatabase User Caution](#).
- 2 Refer to the following links for documentation and instructions:
  - [Wetlands Mapper Documentation and Instructions Manual \(PDF\)](#)
  - VIDEO: [How to find and use the U.S Fish and Wildlife Service's Wetlands Mapper](#)
- 3 Open any Mapper by clicking on the map icons below (best viewed by maximizing your browser window):


### Wetlands Mapper

NWI data desktop/mobile viewer;  
data last modified May 1, 2017.



### Projects Mapper

Recent wetland data additions  
and active wetland mapping projects.



<https://www.fws.gov/wetlands/data/Mapper.html>





# National Wetlands Inventory

surface waters and wetlands

ABOUT

GET DATA

PRINT

FIND LOCATION

BASEMAPS >

MAP LAYERS >

- ☒ Wetlands 1 2
- ☐ Riparian 1 2
- ☐ Riparian Mapping Areas 1 2
- ☒ Data Source 1 2
  - ☐ Source Type
  - ☐ Image Scale
  - ☐ Image Year
- ☐ Areas of Interest 2
- ☐ FWS Managed Lands 1 2
- ☐ Historic Wetland Data 1 2







December 11, 2017

**Wetlands**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

# IF NWI INDICATES A WETLAND

- HUD/RE is responsible for determining determination whether project will impact a wetland (See 55.2(b)(11))
- Consult with US Fish and Wildlife Service to determine location, boundaries, scale, and classification
- If US FWS is not available to resolve NWI ambiguity or controversy, determination must be made by a wetlands professional
- Other information sources may used in conjunction with NWI maps:
  - USDA-NRCS National Soil Survey (NSS)
  - USGS topographic maps
  - State and local information concerning the location, boundaries, scale and classification of wetlands in the area





# WETLANDS DELINEATION STUDY

- Must be performed by an appropriate wetlands professional
- Establishes wetlands boundaries





# HOW TO: DETERMINE IF THE 8-STEP IS REQUIRED



Reminder: questions submitted through the Q&A panel will be answered after the webinar has ended

# EXCEPTIONS TO PART 55

## §55.12(a)

- Activities that may complete the **Modified 5-Step** Process instead of the full 8-Step

## §55.12(b)

- Activities that are not required to complete the 8-Step Process

## §55.12(c)

- Activities that are not required to comply with Part 55

## §55.28

- Non-floodplain wetlands activities that may complete the **Modified 3-Step** Process

*Always check the regs for specific requirements*

# PART 55 DOES NOT APPLY TO...

## **§55.12(c) – Part 55 does not apply to the following types of actions:**

- Projects that are exempt under Part 58 or categorically excluded not subject to the related laws and authorities (CENST) under Part 50 or 58
- Minor amendments to previously approved actions without additional impacts to floodplains or wetlands
- Activities that restore and permanently preserve floodplains and wetlands (requires clearing the property of all existing structures and improvements)
- Housing vouchers and rental subsidies that are not project-based (i.e., do not involve site-specific subsidies)
- Removal of barriers that restrict the mobility of and accessibility to elderly and persons with disabilities
- Projects involving ships and other waterborne vessels

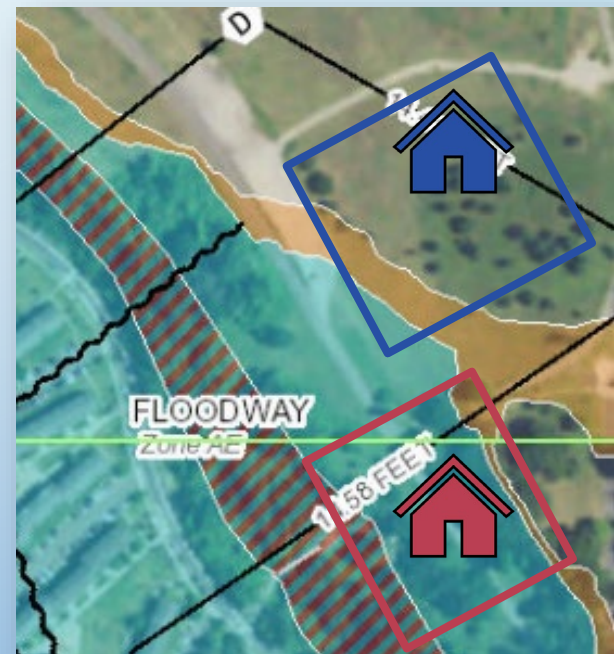
Always check the regs for specific requirements



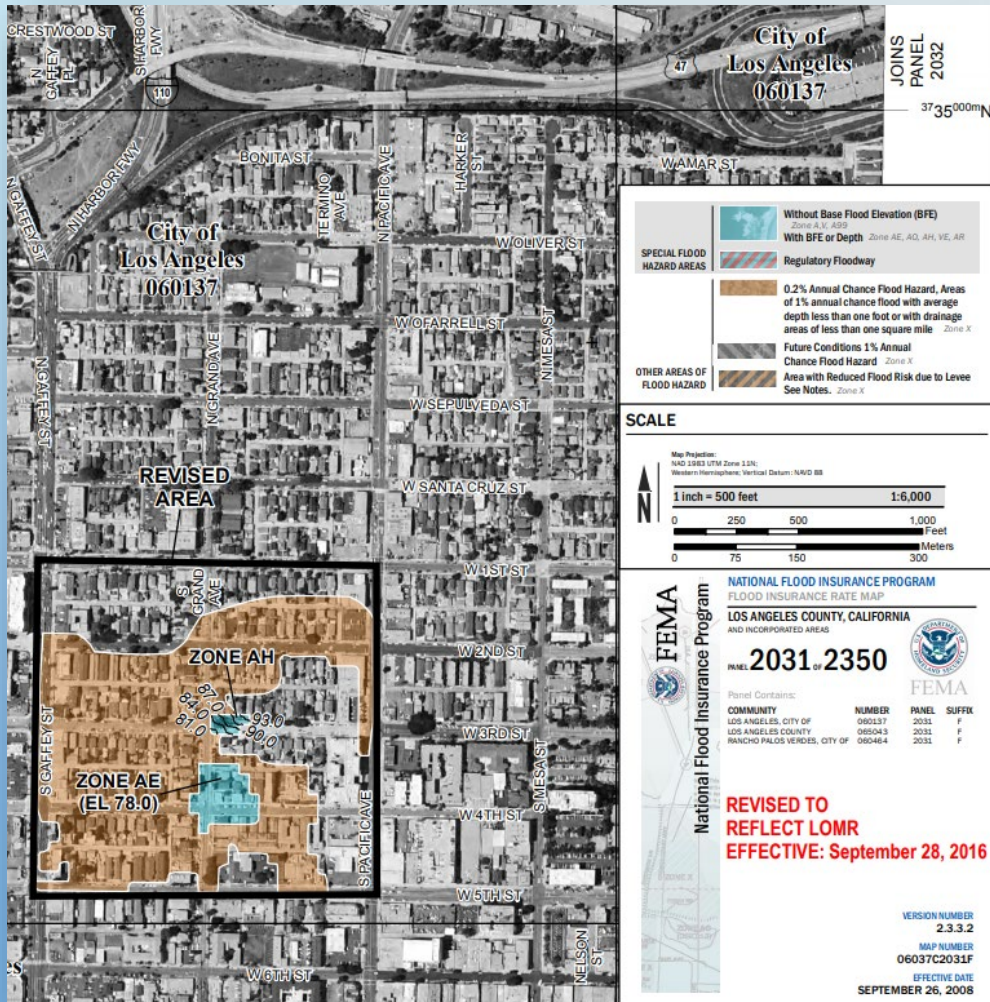
# PART 55 DOES NOT APPLY TO... [CONT.]

§55.12(c)(7): Part 55 does not apply to a site in which an **incidental portion** is situated in an adjacent floodplain or wetland, **but only if**:

- Proposed activities do not occupy or modify the floodplain;
- Provisions are made for site drainage that would not have an adverse effect on any wetland; **and**
- A permanent covenant or comparable restriction is placed on the property's continued use to preserve the floodplain or wetland.



**PART 55 DOES NOT APPLY TO...**  
**[CONT.]**



Any non-wetland site for which FEMA has issued:

- A final Letter of Map Amendment (LOMA) or final Letter of Map Revision (LOMR) that removes the property from a FEMA-designated floodplain, or
- A conditional LOMA or conditional LOMR if the project approval is subject to the requirements and conditions of the conditional LOMA or conditional LOMR

## 8-STEP PROCESS DOES NOT APPLY TO...

Under §55.12(b), certain activities must comply with Part 55 but are *not* required to complete any part of the 8-Step Process:

- **Purchase or refinance** of existing single-family housing (under certain circumstances, e.g. property is not a floodway or V Zone)
- **Minor repairs or improvements** of single-family housing that do not meet the thresholds for “substantial improvement.”
- **Disposition** of individual HUD-acquired single-family housing
- **Leasing** an existing structure located within the floodplain (under certain circumstances, e.g. property is not a floodway or V Zone *and* the entire structure is fully ensured under NFIP)

Always check the regs for specific requirements



# MODIFIED 5-STEP PROCESS APPLIES TO...

Under §55.12(a), certain activities may skip Steps 2 (early notice), 3 (alternatives) and 7 (final notice)

- 5-Step Process applies to...
  - **Disposition** of housing (under certain circumstances)
  - **Purchase or refinance** of existing multifamily housing, hospitals, & nursing homes (under certain circumstances)
  - **Rehab** of existing multifamily housing, hospitals, nursing homes, and nonresidential structures (under certain circumstances, including that the project may not include *substantial improvement*)

Always check the regs for specific requirements

# MODIFIED 3-STEP PROCESS APPLIES TO...

- Under **§55.28**, wetlands projects can skip directly to Step 6 if:
  - The project is **outside** of the 100-year floodplain (or 500-year for critical actions),
  - The USACE (or state/tribe under Section 404(h) of Clean Water Act) issues the proposed project an **individual** Section 404 permit and HUD/RE adopts the terms and conditions of that permit, and
  - **All** wetlands adversely affected by the action are covered by the permit
- Exception does **not** apply to general or nationwide permits
- Where applicable, only 3 steps are required: Reevaluation (Step 6), Final Notice (Step 7), and Implementation (Step 8)

# HOW TO: CONDUCT THE 8-STEP PROCESS



Reminder: questions submitted through the Q&A panel will be answered after the webinar has ended



# THE 8-STEP PROCESS

The decision making process outlined in 55.20 provides framework for:

- Taking a “hard” look at alternative sites
- Minimizing flood hazards and impacts to wetlands
- Restoring beneficial values of the floodplain and wetlands



# RESPONSIBILITIES

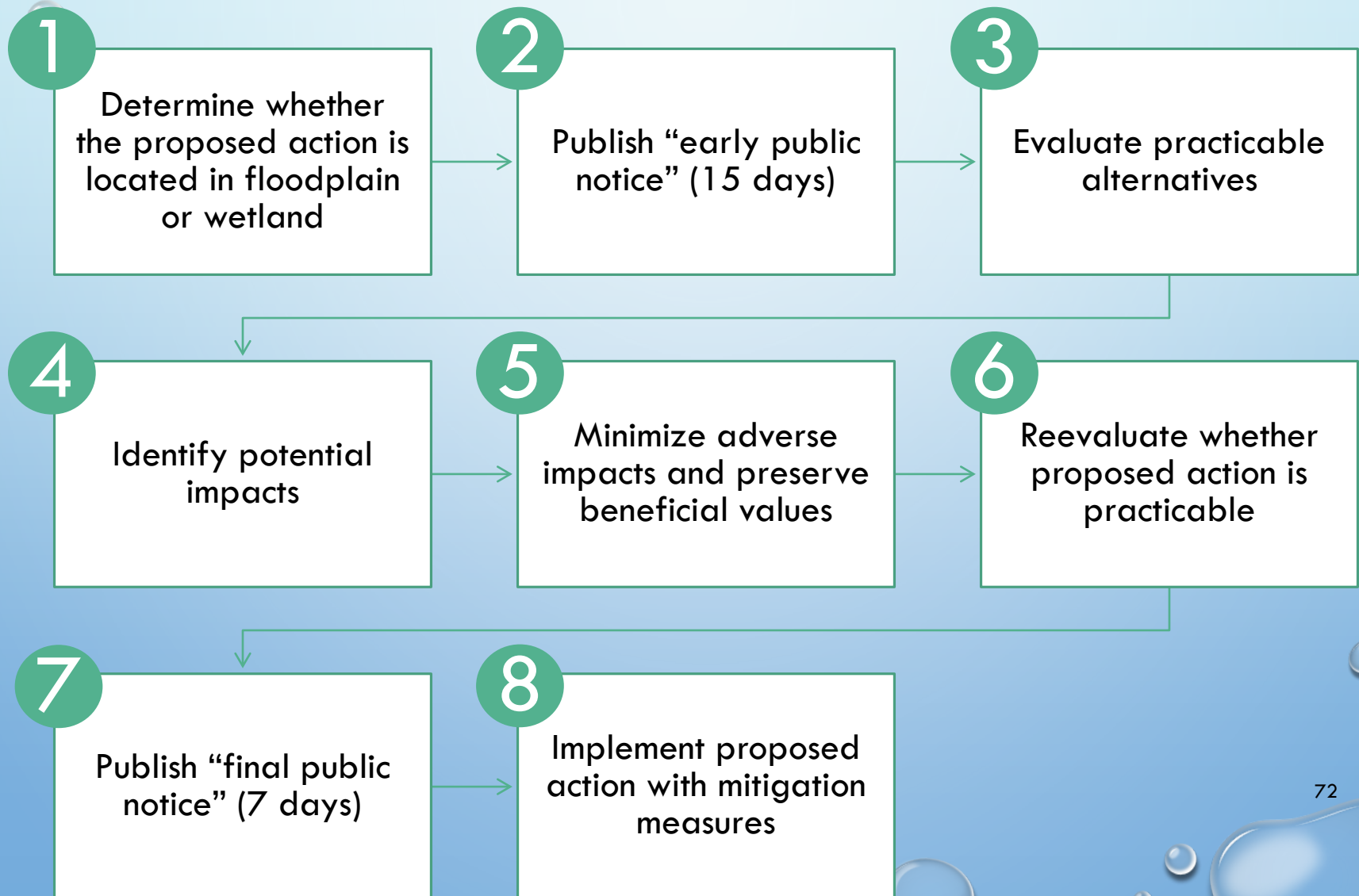
## HUD/RE responsibility

- Completes the 8-step process
- Ultimately responsible for compliance with Part 55
- Monitor approved projects and ensure that required mitigation is implemented

## Applicant/grantee/recipient responsibility (55.3(d))

- Supply HUD/RE with all available, relevant information necessary to comply with Part 55
- Cover the costs of notice publication
- Implement mitigation measures required by HUD/RE or choose an alternate site

# 8-STEP PROCESS (§ 55.20)





# STEP 1: MAP FLOODPLAINS AND WETLANDS

## Floodplain Identification

- Rely on FEMA maps
- Interim/preliminary FEMA data must be used *unless* they are less protective than the current map
- If FEMA information is unavailable or insufficiently detailed, use “best available information”

## Wetlands Identification

- Use National Wetlands Inventory (NWI) maps from FWS as a preliminary screening tool
- If there is reason to question NWI maps, attempt to consult with FWS, refer to secondary sources
- Wetlands delineation may be necessary

\* Always mark the site on all maps \*

# STEP 1: WHAT'S NEXT?



- If no floodplains or new construction in wetlands, stop here



- Check if an exception in 55.12 applies



- Otherwise, continue to Step 2
- If site contains floodplains *and* wetlands, complete a combined 8-Step

## STEP 2: EARLY PUBLIC NOTICE

**Notify public of proposal at earliest possible time in local printed news medium**

- Also send to agencies and individuals with interest in the proposed action
- 15-day minimum comment period
- Must include:
  - Project name, location, and description
  - Total number of acres in floodplain/wetland
  - Functions and values of floodplain/wetland that may be adversely impacted
  - HUD approving official or RE certifying officer and office hours
  - Phone number and website (if any) for further information



## STEP 3: ALTERNATIVES

### **Identify and evaluate practicable alternatives to locating project in floodplain or wetland**

- Alternative sites (outside floodplain/wetland but within same geographic area)
- Alternative methods that achieve the same project objective/purpose
- “No project” alternative (rejecting project in floodplain/wetland)

Practicable = measured by general concept of site feasibility considering natural, social, economic, and legal factors.

# STEP 4: IMPACTS

## Identify potential direct and indirect impacts

- Consider impacts to:
  - Lives and property
  - Floodplains and wetlands
- Three types of impact:
  - Positive & negative
  - Concentrated & dispersed
  - Short- and long-term
- Does project encourage future development in floodplains or wetlands?



# STEP 4: IMPACTS TO CONSIDER

Floodplain Impacts	Wetland Impacts
<p>Focus on:</p> <ol style="list-style-type: none"><li>1. Adverse impacts to lives and property, and</li><li>2. Natural and beneficial floodplain values, including –<ul style="list-style-type: none"><li>• Water resources: natural flood moderation, water quality maintenance, groundwater recharge</li><li>• Living resources: flora, fauna</li><li>• Cultural resources: archaeological, historic, recreational</li><li>• Agriculture, aquaculture, forestry</li></ul></li></ol>	<p>Consider the project's potential effect on the survival and quality of the wetland:</p> <ul style="list-style-type: none"><li>• How impacts to water supply/quality, pollution, flood/storm hazards, and sediment/erosion will affect public health, safety, welfare</li><li>• Impacts to existing natural systems, e.g. species and habitat diversity/stability, hydrologic function, food resources</li><li>• Extra cost to minimize impacts</li><li>• Impacts to recreational, scientific, cultural resources</li></ul>



# STEP 5: MITIGATION

## Minimize, restore, preserve

- **Minimize** – “reduce harm to smallest possible degree” (rigorous, demanding standard beyond mitigate or alleviate)
- **Restore** – re-establish environment in which the natural & beneficial floodplain/wetland values can operate
- **Preserve** – prevent modification to natural floodplain/wetland or maintain as closely as possible to its natural state



# STEP 5: MITIGATION OPTIONS

For floodplains and wetlands:

- Minimizing fill, using permeable surfaces
- Landscape enhancements to maintain/restore natural hydrology/drainage
- Using native plant species, minimizing tree/plant cutting
- Stormwater capture & reuse
- Green/vegetative roofs with drainage provisions
- Conservation easements
- Scale back size of project/construction area

For floodplains: elevating or floodproofing structures (including freeboard)

For wetlands: compensatory mitigation

# ELEVATION

- The National Flood Insurance Program (NFIP) requires all new construction and substantial improvement projects to elevate to base flood elevation (BFE)
  - Non-residential structures generally may floodproof instead of elevating
- Part 55 does not have elevation requirements for non-critical actions
  - HUD-assisted projects must comply with NFIP rules and local elevation rules





# FREEBOARD

- Freeboard = a margin of safety added to BFE
  - 1 foot of freeboard translates to elevating 1 foot above BFE
- Some HUD programs, including CDBG-Disaster Recovery and FHA Multifamily, have freeboard requirements not in Part 55
- Benefits:
  - Significant savings on flood insurance premiums
  - Safer homes with less damage during floods



# MITIGATION FOR CRITICAL ACTIONS

55.20(e)(3) includes certain *required* mitigation measures for critical actions in the 100-year or 500-year floodplain:

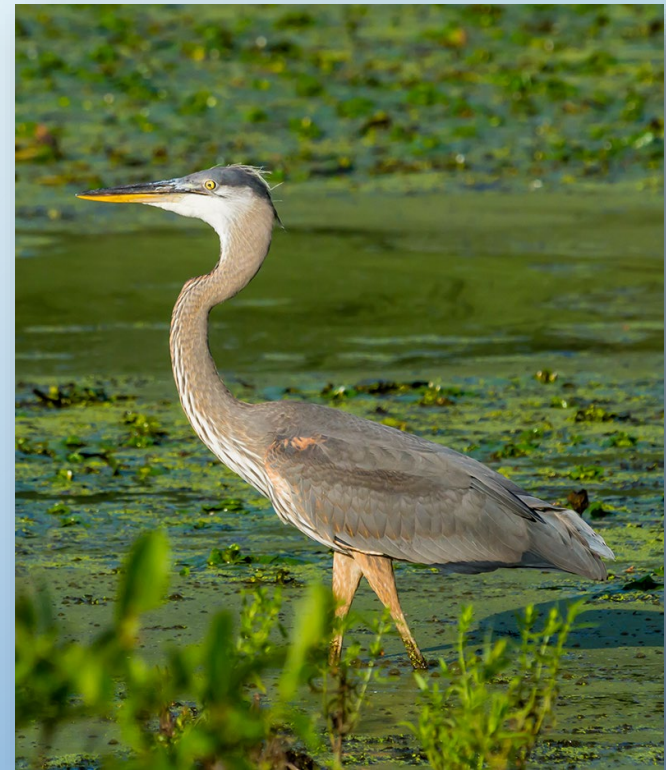
- New construction must be designed and built at or above the 100-year floodplain
- Prepare an early warning system
- Implement an emergency evacuation/relocation plan
- Identify evacuation routes
- Mark past or estimated flood levels on all structures

# COMPENSATORY MITIGATION

Compensatory Mitigation = restoration, establishment, enhancement, and/or preservation of resources to offset unavoidable adverse impacts

- Recommended for unavoidable adverse impacts to more than one acre of wetland
- Not a substitute for avoiding and minimizing impacts to the maximum extent practicable

Options include: permittee-responsible mitigation, mitigation banking, in-lieu fee mitigation, use of preservation easements or protective covenants or other forms of mitigation promoted by state or federal agencies





# STEP 6: REEVALUATION

## **Reevaluate proposal and alternatives**

- Is project still feasible considering...
  - Exposure to flood risks (Step 4)
  - Potential adverse impacts to floodplain/wetland and loss of natural functions and values (Step 4)
  - Minimization measures and opportunities to restore & preserve floodplain/wetland values (Step 5)
- In light of Steps 4 & 5, do alternatives rejected in Step 3 appear feasible?
  - Best practice: Prepare table to compare adverse impacts of alternatives
- If neither proposed project nor alternatives are acceptable, the alternative is no action

# STEP 6: REEVALUATION

Consider potential impacts caused or avoided inside and outside floodplain/wetland

- Discussion should include potential impacts to human life, real property, and functions/values of floodplain/wetland

Discuss economic costs in this step

- Floodplains: discussion should include costs of flood insurance (costs and savings), elevation/floodproofing, replacement of services/functions that may be lost due to flooding
- Wetlands: discussion should include cost of filling wetland, mitigation

# STEP 7: FINAL NOTICE

## **Public explanation**

- If no practicable alternative, inform the public
  - Publish in newspaper with same procedures as Step 2
  - 7-day minimum comment period
- Notice must include:
  1. Reasons why project must be located in floodplain/wetland
  2. List of alternatives considered in Step 3
  3. All mitigation measures to be taken and actions to restore and preserve natural and beneficial values



# STEP 8: IMPLEMENTATION

## Implement project

- HUD/RE and recipient have a **continuing obligation** to ensure that mitigation measures described in Final Notice are implemented
- Documentation (§55.27) must show:
  - Actual sites were identified for consideration as practicable alternatives outside of floodplain/wetland
  - Reason for non-selection of above sites as practicable alternatives
  - Minimization measures have been applied to the project design





## WRAPPING UP: PART 55 HIGHLIGHTS

- Prohibits nearly all HUD assistance in floodways and most construction in coastal high hazard areas
- Requires an 8-step decision making process to demonstrate that there are no practicable alternatives for:
  - Most projects in a 100-year floodplain
  - Critical actions in the 100- or 500-year floodplain
  - Functionally dependent uses in a floodway or coastal high hazard area
  - New construction impacting a wetland
- Provisions to modify or skip the 8-step process for some activities

# ONLINE RESOURCES

- See the HUD Exchange for more:  
<https://www.hudexchange.info/programs/environmental-review/floodplain-management/> and  
<https://www.hudexchange.info/programs/environmental-review/wetlands-protection/>
- Resources include:
  - Overview of requirements
  - Links to external resources and mapping tools
  - Model 8-Step processes, covenants, and public notices



# QUESTIONS

SUBMIT QUESTIONS USING THE Q&A PANEL AND THEY  
WILL BE ANSWERED AFTER THE WEBINAR HAS ENDED



# FOR MORE QUESTIONS?

For questions about specific projects, work with the local Field or Regional Environmental Officer

Visit:

<https://www.hudexchange.info/programs/environmental-review/hud-environmental-staff-contacts/>

Questions submitted through the Q&A panel will be answered after the webinar has ended

# UPCOMING WEBINARS

- Noise Training for FHA Partners (April 29, 2020)
- Floodplain Training for FHA Partners (May 12, 2020)
- Section 106 (May TBD 2020)
- Section 106 Historic Preservation Training for FHA Partners (July 23, 2020)
- HEROS Training for Multifamily FHA Partners (September 22, 2020)

