

National Flood Insurance Program

Local Flood Damage Prevention Ordinance and Higher Regulatory Standards

June 18, 2010



FEMA

Ordinance Workshop

Donnie Walsh, CFM

FEMA Region VI

940.898.5207

Donetta.Walsh@dhs.gov

Debbie Cahoon, CFM

Texas Water Development Board

281.895.6555

Debbie.Cahoon@twdb.state.tx.us



FEMA

NFIP Legislation

- The National Flood Insurance Act of 1968
 - Created NFIP
- The Flood Disaster Protection Act of 1973
 - Mandatory Purchase Requirement
- The Flood Insurance Reform Act of 1994
 - Establishment of ICC
- The Flood Insurance Reform Act of 2004
 - Repetitive Loss (SRL) grant program



FEMA

NFIP Legislation (continued)

- 44 CFR: Emergency Management and Assistance
 - 59.1: Definitions
 - 60.3: Floodplain Management Criteria
 - Local Regulations
 - Ordinance/Court Order



FEMA

NFIP Model Ordinance

- NFIP Model Ordinances are based on criteria in 44 CFR 60.3
- 44 CFR 60.3 represents only *minimum* standards for a community to be eligible to participate in the NFIP
- FEMA *STRONGLY* encourages the adoption of higher regulatory standards



FEMA

44 CFR 60.3(a-e)

All NFIP Ordinances Must Contain:

- Citation of Authority
- Framework for administering ordinance (permit system, identify office responsible, record keeping, etc.)
- Enforcement provisions (violation and penalty section)
- Variance section with evaluation criteria and insurance notice
- Purpose section (health, safety and welfare reasons)



FEMA

44 CFR 60.3(a-e)

- All NFIP Ordinances Must Contain (continued):
 - Disclaimer of liability section advising degree of flood protection required does not imply total flood protection
 - Abrogation and greater restrictions section (ordinance does not waive compliance with other laws and where ordinance imposes greater restrictions, ordinance shall control)
 - Severability section (if a portion is adjudged unconstitutional, the remainder of the ordinance shall not be affected)
- NFIP Definitions



FEMA

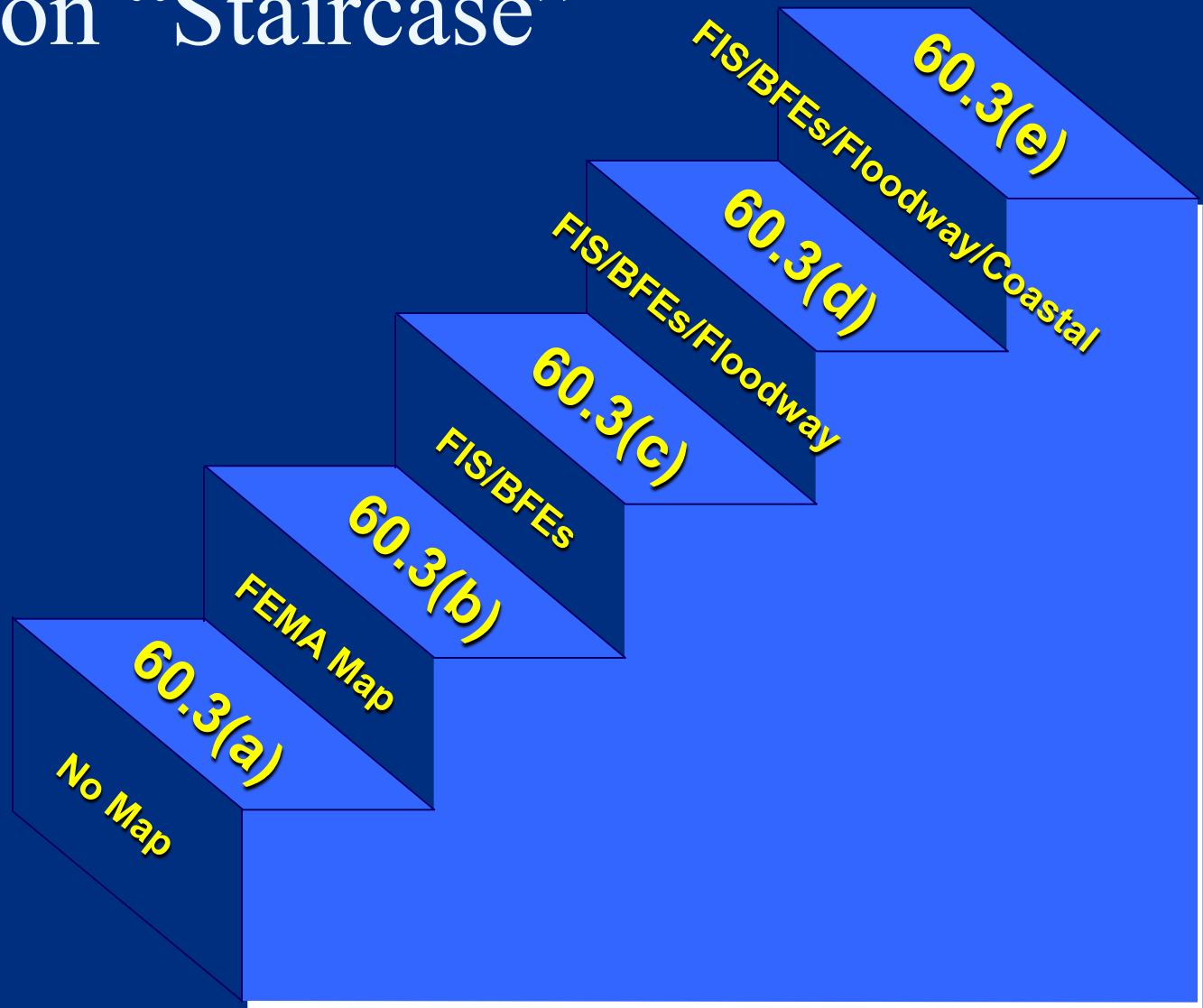
Regulation “Staircase”

- Regulations build cumulatively in increments according to mapping and flood zone designations.
- Each step adds more stringent requirements as risk increases.



FEMA

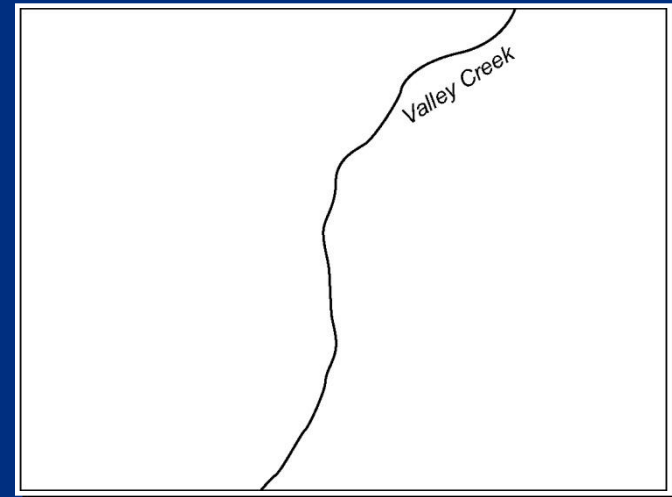
Regulation “Staircase”



FEMA

44 CFR §60.3(a): No Flood Map

- Applies to communities for which FEMA:
 - Identified no Special Flood Hazard Areas.
 - Prepared no flood map.



44 CFR 60.3(a)

- Applies when no Special Flood Hazard Areas have been identified by FEMA (no published maps)
- Permits Required:
 - For all proposed development including placement of manufactured homes to determine flood risk
 - Determine whether proposed building sites will be reasonably safe from flooding
 - Assure that all other State and Federal permits are obtained



FEMA

44 CFR 60.3(a)

- If proposed development is flood prone:
 - Anchor to prevent flotation, collapse & lateral movement
 - Use materials and construction methods that minimize flood damage, and
 - Design and/or locate electrical and mechanical equipment to prevent entry of flood waters
 - Require water supply systems to be designed to minimize or eliminate infiltration of flood waters
 - Require sanitary sewage systems and waste disposal systems be protected to prevent contamination or impairment



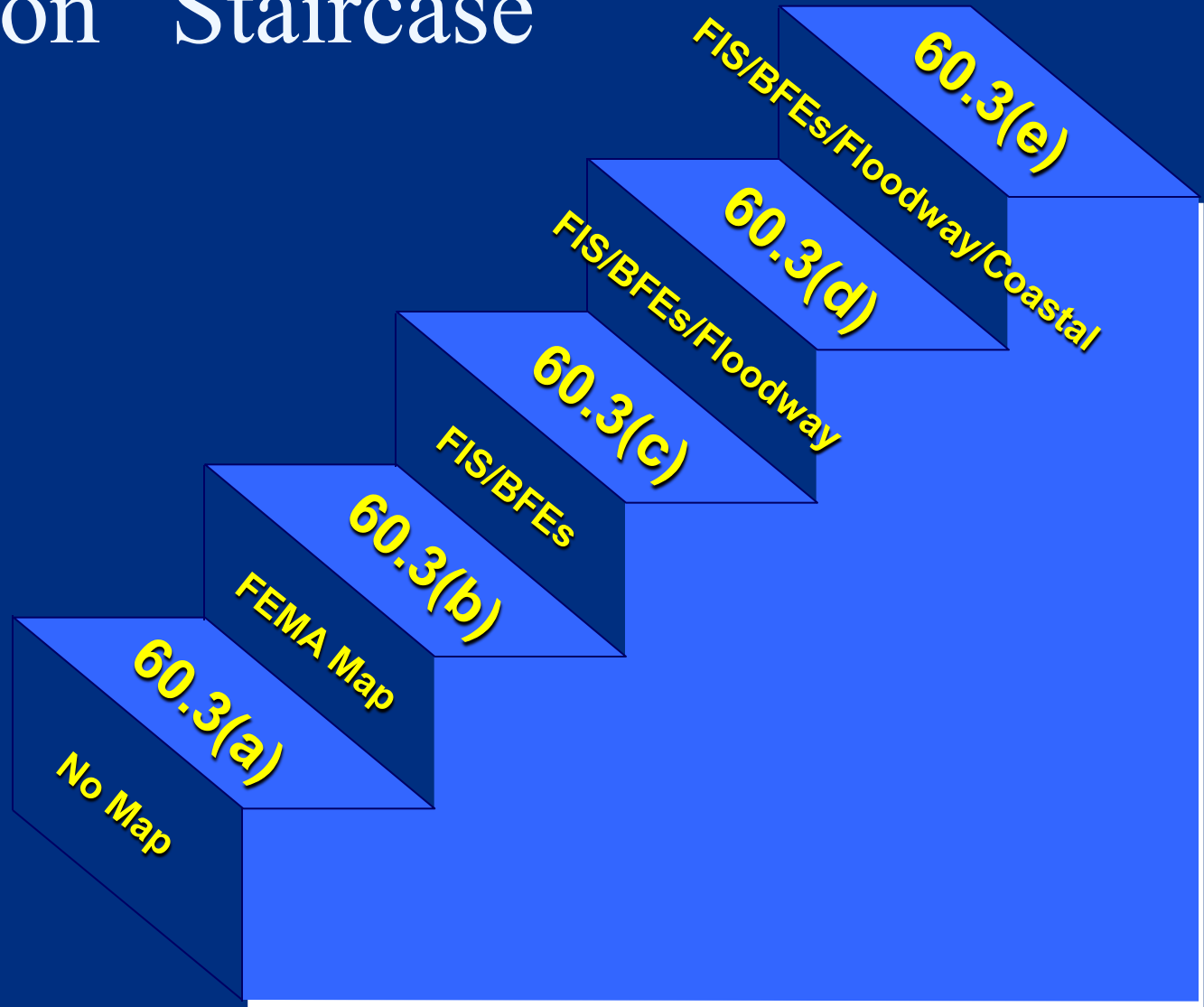
44 CFR 60.3(a)

- Subdivision Proposals
 - If flood prone
 - Proposal should minimize flood damage
 - Public utilities and facilities should be designed to minimize flood damage and
 - Design should include adequate drainage plans



FEMA

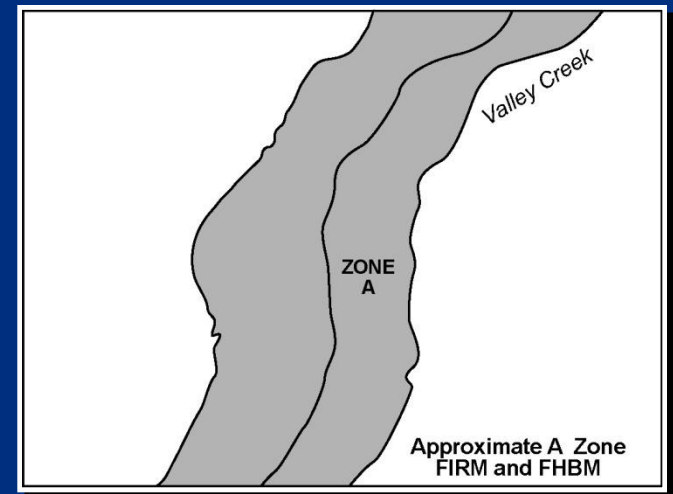
Regulation “Staircase”



FEMA

60.3(b): Approximate Zone A

- FIRMs identify Special Flood Hazard Areas (approximate Zone A).
- No studies to determine:
 - Base Flood Elevations.
 - Regulatory floodways.
 - Coastal high hazard areas.



44 CFR 60.3(b)

- Apply standards of Section 60.3(a)(2-6) to development in special flood hazard areas
- Adopt or reference correct flood map (automatic adoption provision)
- Require permits for all development including placement of manufactured homes in flood hazard areas on the FHBM or FIRM
- Community's responsibility to obtain, review and reasonably utilize any base flood elevation and floodway data from a Federal, State, or other reliable source as criteria for new development in SFHAs



FEMA

44 CFR 60.3(b)

- In riverine situations, notify adjacent communities and the State Coordinating Agency of any watercourse alteration
- Maintain the carrying capacity of an altered or relocated watercourse
- Obtain elevation of lowest floor or obtain floodproofing certificate for commercial structures
- Obtain and maintain records of lowest floor and floodproofing elevations for new and substantially improved construction



Watercourse Alteration: 60.3(b)(6)



FEMA

Elevation Certificate: 60.3(b)(5)



FEDERAL EMERGENCY MANAGEMENT AGENCY

NATIONAL FLOOD INSURANCE PROGRAM

ELEVATION CERTIFICATE

AND

INSTRUCTIONS

NEW EDITION



FEMA

44 CFR 60.3(b)

- Subdivision Proposals:

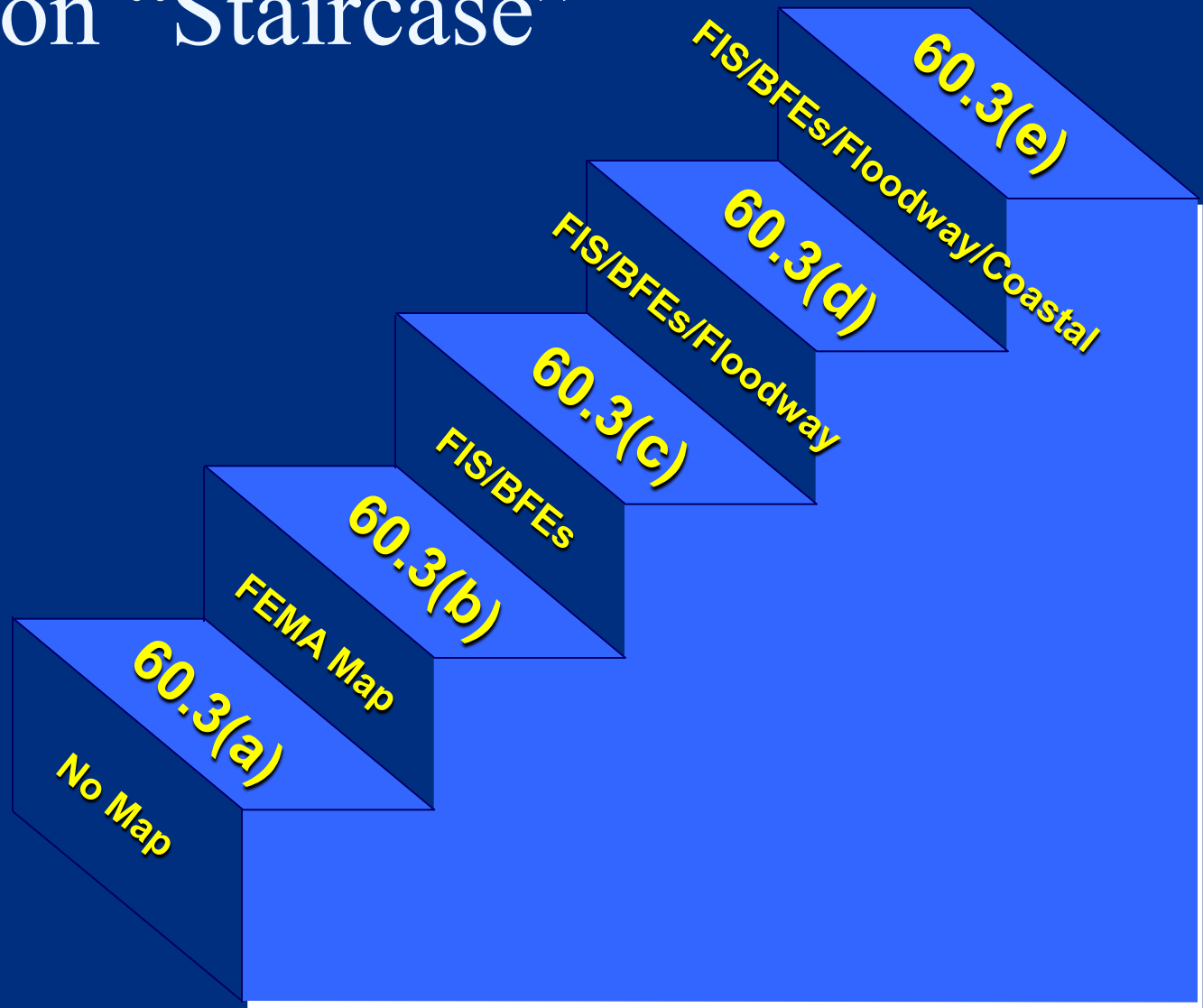
Require base flood elevation data on proposals for subdivisions over fifty lots or five acres

- Require all manufactured homes to be elevated and anchored to resist flotation, collapse or lateral movement



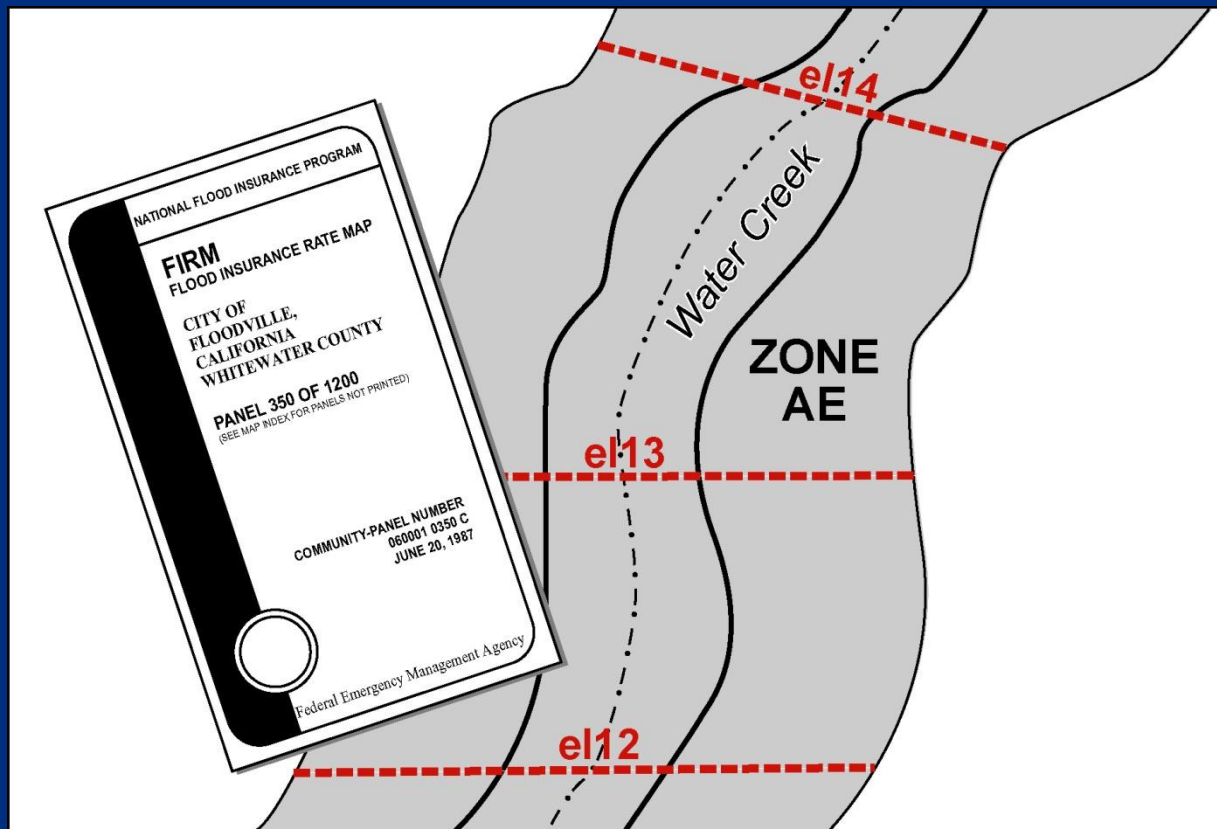
FEMA

Regulation “Staircase”



FEMA

FIRM With Elevations



FEMA

44 CFR 60.3(c)

- Require the standards of 60.3(b) of this section within all A1-30, AE, A, AH and AO Zones
- Require all new and substantially improved residential structures have their lowest floor (including basement) elevated to or above BFE
- In AO Zones, require new and substantially improved residential structures have their lowest floor (including basement) to or above the highest adjacent grade at least as high as the FIRM's depth number



44 CFR 60.3(c)

- Require new and substantially improved non-residential structures have lowest floor elevated or floodproofed to or above the BFE
- In AO Zones, require new and substantially improved non-residential structures have lowest floor elevated or floodproofed above the highest adjacent grade to at least as high as the depth number on the FIRM
- For non-residential floodproofed structure, require a registered professional engineer/architect certify the design and methods of construction meet requirements (utilities and sanitary facilities)



FEMA

44 CFR 60.3(c)

- Require that fully enclosed areas below the lowest floor that are used solely for parking, access and storage (other than a basement) be designed to equalize hydrostatic forces by allowing entry and exit of floodwaters (openings requirement)
- Until regulatory floodway is designated, no encroachment may increase BFE more than 1 foot
- In Zones AO and AH, require drainage paths around structures on slopes to guide water away from structures



44 CFR 60.3(c)

- Require manufactured homes placed or substantially improved be elevated to or above the BFE and securely anchored if locating;
 - Outside manufactured home park or subdivision;
 - In a new manufactured home park or subdivision'
 - In an expansion to existing manufactured home park or subdivision;
 - On a site in an existing park where manufactured home has incurred substantial damage as a result of flood.

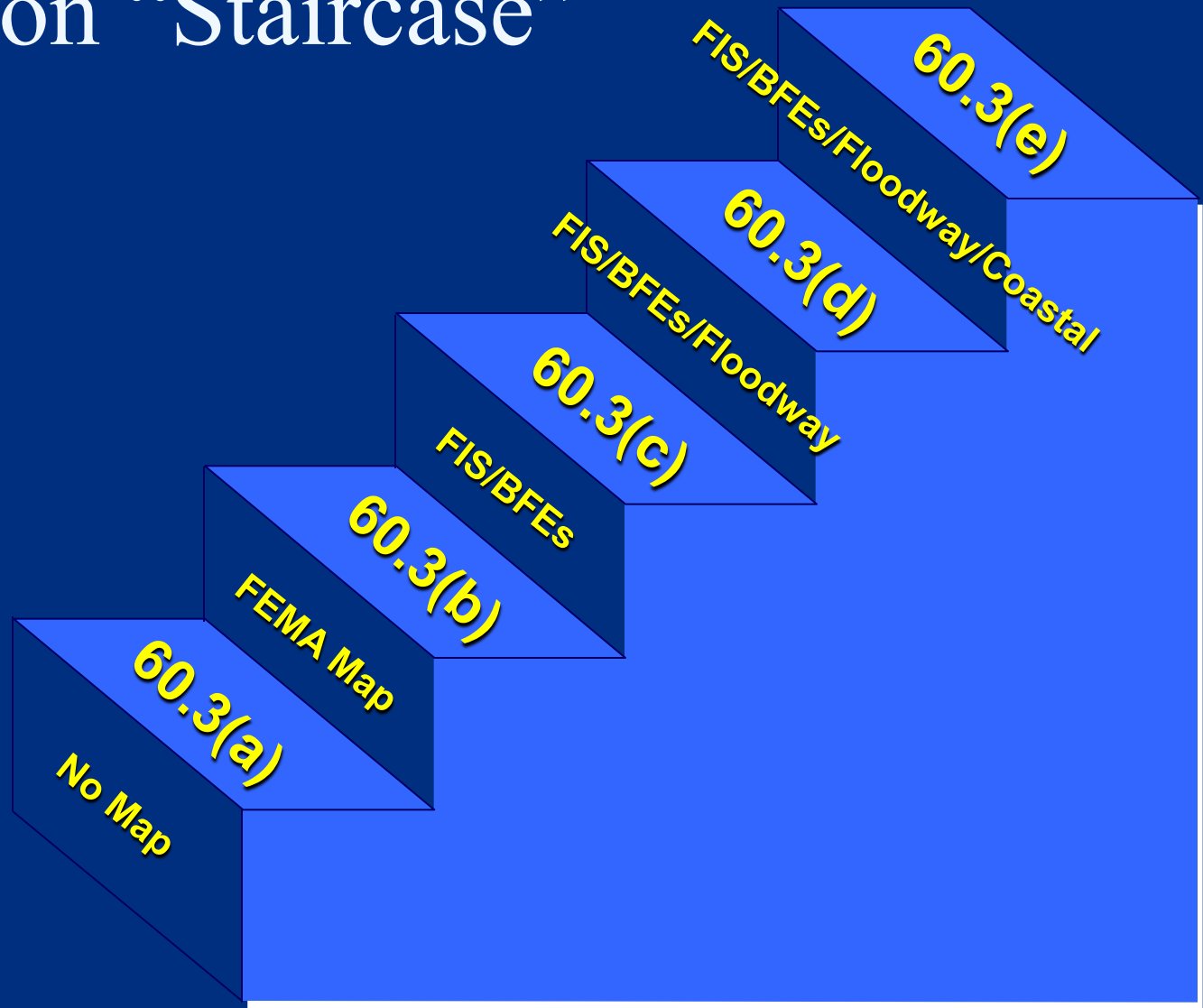


44 CFR 60.3(c)

- Require that manufactured homes placed or substantially improved in an existing manufactured home park be elevated so that:
 - The lowest floor is at or above BFE; OR
 - The chassis is supported by reinforced piers no less than 36 inches above grade and securely anchored
- Recreational vehicles placed on a site must:
 - Be elevated and anchored; OR
 - Be on site for less than 180 consecutive days; OR
 - Be fully licensed and highway read

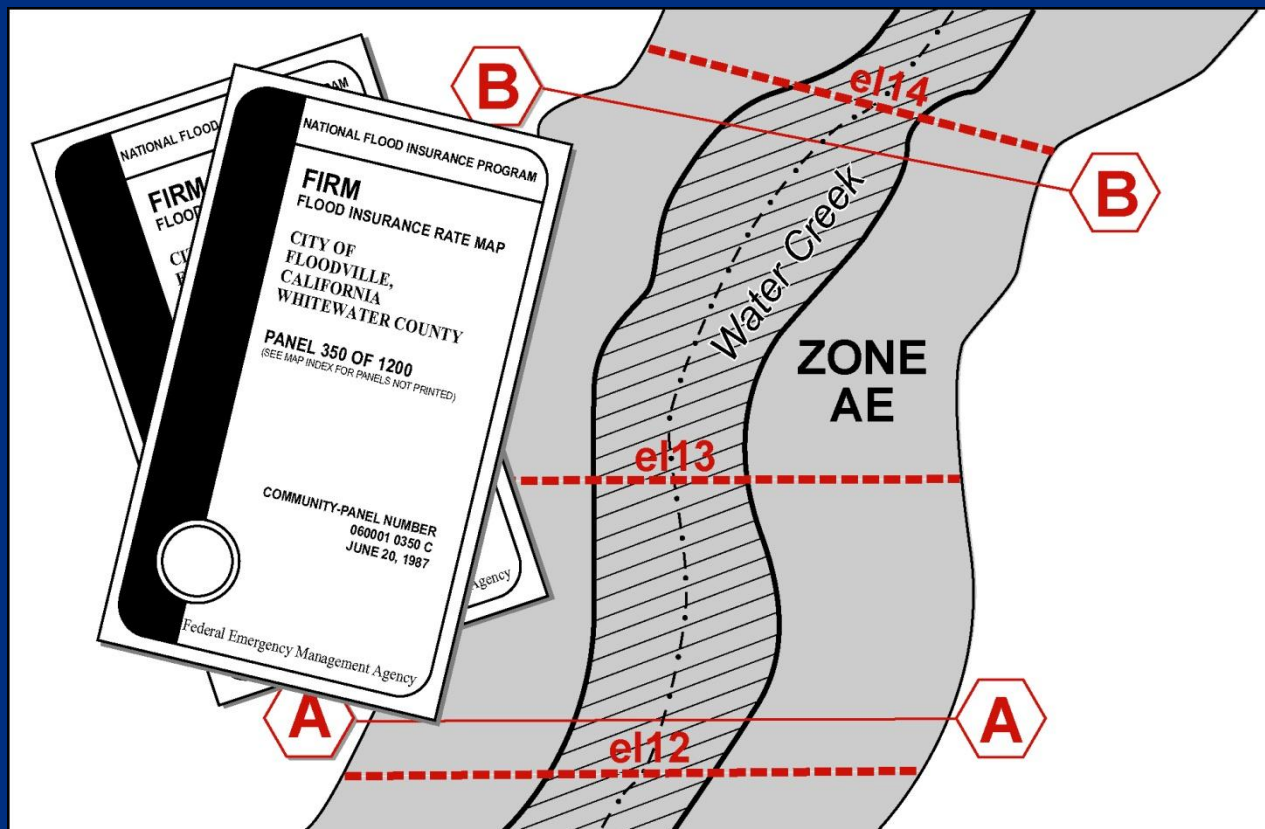


Regulation “Staircase”



FEMA

FIRM With Floodway Data



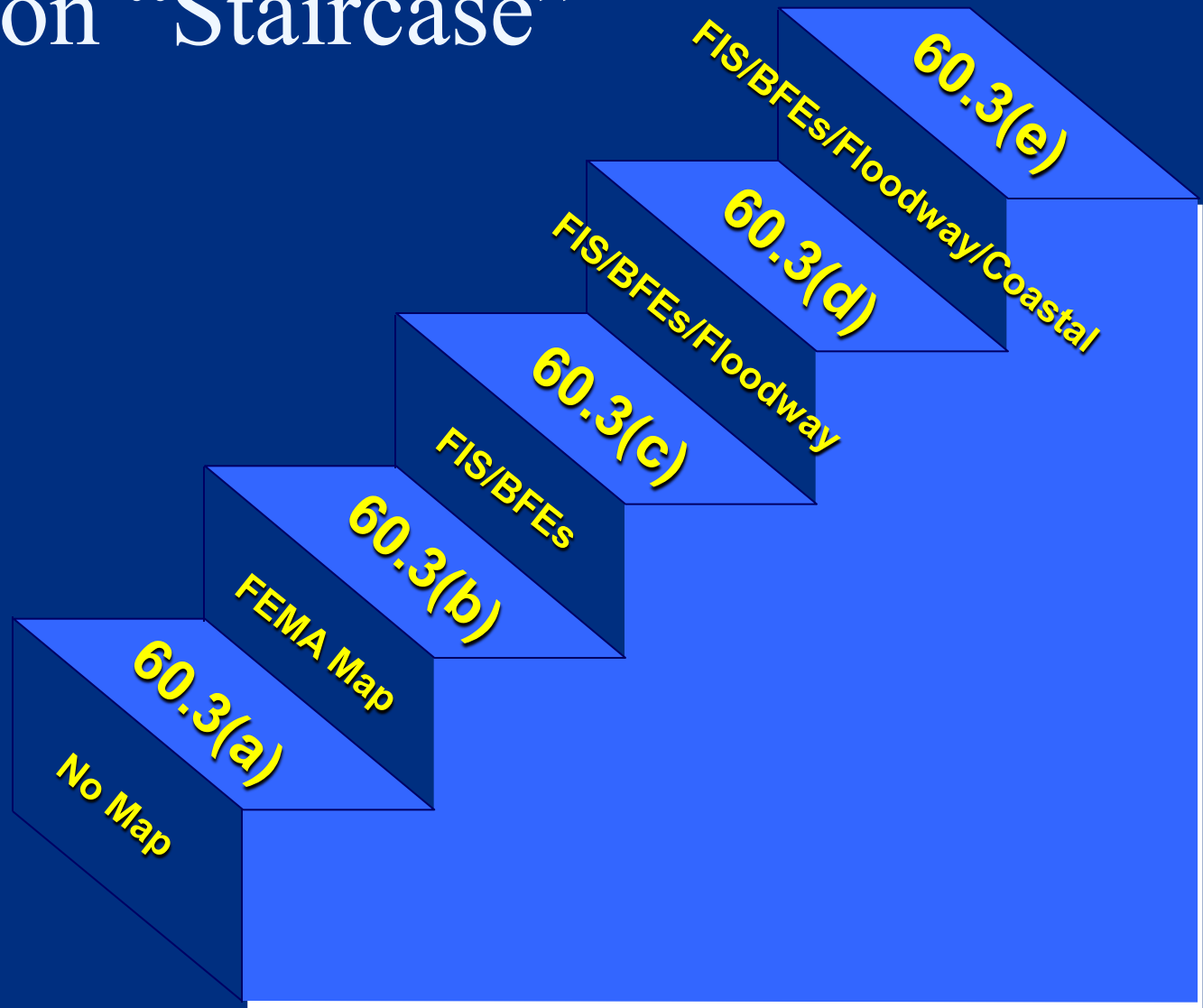
FEMA

44 CFR 60.3(d)

- Apply all standards of Section 60.3(c) to all development in SFHAs
- Designate a regulatory floodway which will not increase the BFE more than 1 foot
- In the regulatory floodway, prohibit any encroachment which would cause increase in BFE unless hydrologic and hydraulic analyses prove proposed encroachment would not increase flood levels during base flood

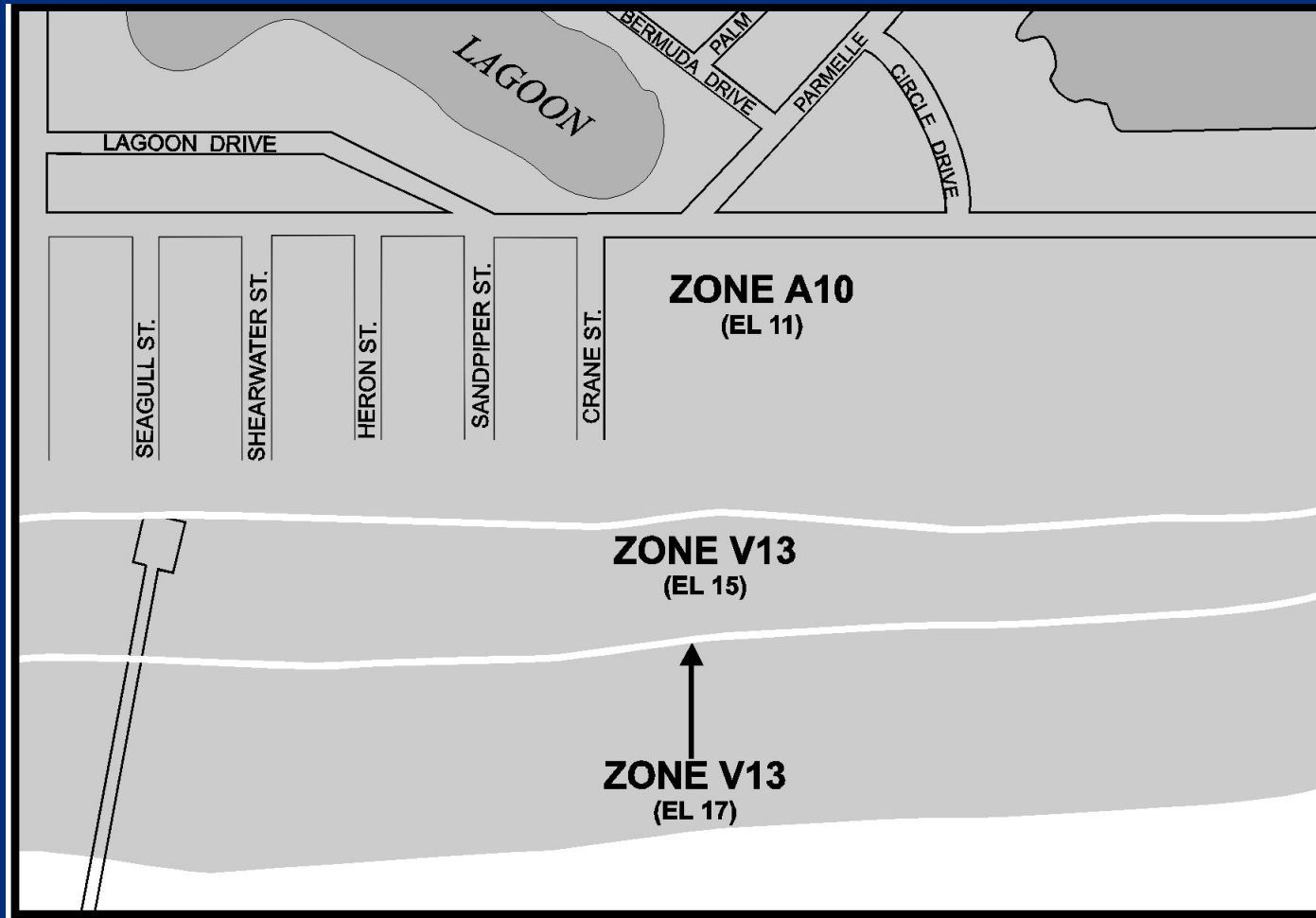


Regulation “Staircase”



FEMA

FIRM With V Zones



FEMA

44 CFR 60.3(e)

- Apply all standards of Section 60.3(d) to all development in SFHAs
- V1-30, VE and V Zones:
 - Obtain and maintain elevation of the bottom of the lowest horizontal structural member of the lowest floor of new and substantially improved structures
- Require all new construction and substantial improvements;
 - Are elevated and secured to anchored pilings/columns so that bottom of lowest horizontal structural member is at or above BFE



44 CFR 60.3(e)

- A registered professional engineer/architect must certify that the design and methods of construction meet all elevation and anchoring requirements
- Space below the lowest floor must be free of obstruction or constructed with breakaway walls. Enclosed space shall be used solely for parking, access or storage
- All new construction must be landward of mean high tide
- Prohibit use of fill for structural support
- Prohibit alteration of sand dunes and mangrove stands



44 CFR 60.3(e)

- Require manufactured homes meet V zone standards if placed:
 - Outside a manufactured home park or subdivision;
 - In a new manufactured home park or subdivision
 - In an expansion to an existing manufactured home park or subdivision
 - On a site in an existing park when a manufactured home has incurred substantial damage as a result of flood



44 CFR 60.3(e)

- Require manufactured homes to be placed or substantially improved in an existing manufactured home park to be elevated so that ;
 - The lowest floor is at or above BFE, OR
 - The chassis is supported by reinforced piers no less than 36 inches above grade and securely anchored
- All recreational vehicles to be placed on a site must
 - Be elevated and anchored; OR
 - Be on site for less than 180 consecutive days; OR
 - Be fully licensed and highway ready



NFIP Insurance Driven

- FEMA FIRMs reflect “current” conditions to facilitate accurate flood insurance rating.
- “Fully Developed” conditions are not reflected on FEMA FIRM’s



FEMA

IBC/IRC versus FEMA Regs

- IBC/IRC only addresses “structures”.
- FEMA regulations define “development” as:
 - Any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, grading, filling, paving, excavation or drilling operations or storage of equipment or materials.



FEMA

House Bill 1018

- HB 1018 requires Texas cities and counties to be ELIGIBLE to join the NFIP
- The 77th Legislature of the State of Texas amended Subchapter I, Chapter 16, Water Code, by adding Section 16.3145 to read as follows:
- *"The governing body of each city and county shall adopt ordinances or orders, as appropriate, necessary for the city or county to be eligible to participate in the National Flood Insurance Program....., not later than January 1, 2001."*



FEMA

Senate Bill 936

- The 77th Texas Legislature amended the Water Code, effective September 1, 2001, to authorize all political subdivisions to:
 - Adopt more comprehensive floodplain management regulations which are necessary for planning and appropriate to protect public health and safety;
 - Participate in floodplain management and mitigation initiatives such as the CRS;
 - Collect reasonable fees to cover administrative costs incurred by the administration of a local floodplain management program.



FEMA

County Powers and Duties

- Modified by the 81st Texas legislature
- http://www.oag.state.tx.us/AG_Publications/pdfs/copowersduties.pdf
- Local Government Code, Section 240.903
- **240.901**
- Coastal counties may regulate land, structures, and other development in flood-prone areas and authorize the filing of a notice of a violation of the regulations in the real property records.



FEMA

County Powers and Duties

- **Chapter 16, SubChapter I (16.311 - 16.324)**
- In order to minimize losses from flood damage, **counties**, with the aid and coordination of the Texas Water Development Board and the Texas Department of Insurance, **are authorized to take all necessary and reasonable actions** that are **not less stringent** than the requirements and criteria of the National Flood Insurance Program **to restrict development of land and set standards regarding construction in flood plains**. This can include adopting orders necessary for the county to be eligible to participate in the National Flood Insurance Program and collecting reasonable fees to cover the cost of administering its local floodplain management program.



FEMA

Questions?



FEMA



FEMA