

Flood Hazard Prevention



City Council Presentation
February 23, 2016



Purpose of Updating Codes

- Save lives and reduce flood damage to insurable property
- Offer low cost flood insurance
- Encourage a comprehensive approach to floodplain management
- Higher standards
 - Freeboard
 - LiMWA
 - V-Zone Design and Construction Certificate
 - Non-Conversion Agreement
 - Cumulative Substantial Damage/Improvement



Freeboard

- The City of Corpus Christi is proposing 1 foot of freeboard
- What does this mean for new construction?
 - Example: If maps indicate a base flood elevation of 10 ft., the construction requirement will be 11 ft.
 - Fill can be used to raise the site in a “Zone A”
 - Fill would not be allowed in a “Zone V”



Insurance Savings

Approximate Insurance Premiums ¹				
Zone A ²				
Elevation	Annual Premium	30-Year	Annual Savings	30-Year Savings
0	\$ 1364	\$ 40,920	\$ 0	\$ 0
+ 1'	\$ 702	\$ 21,060	\$ 662 (51%)	\$ 19,860
Zone V ³				
Elevation	Annual Premium	30-Year	Annual Savings	30-Year Savings
0	\$ 6681	\$ 200,430	\$ 0	\$ 0
+ 1'	\$ 4230	\$ 126,900	\$ 2451 (63%)	\$ 73,530

¹NFIP Premiums based on October 2013 rates for single floor residential structure with no basement or enclosure. \$2,000 deductible/\$250,000 building coverage and \$100,000 contents coverage.

² Zone A: This Flood Insurance Rate Map designation refers to areas that are subject to flooding, but with less wave energy than Zone V.

³ Zone V: This Flood Insurance Rate Map designation refers to coastal areas that are subject to the highest level of wave energy and flooding



Communities With Adopted Freeboard

- In 2014 Texas Floodplain Management Association conducted a survey for higher standards that included freeboard
 - 297 Texas communities participated in this survey
 - 81% of the communities surveyed have adopted freeboard
 - 113 communities have adopted 1' of freeboard
 - 18 communities have adopted 1.5' of freeboard
 - 93 communities have adopted 2' of freeboard
 - 16 communities have adopted 3' of freeboard
 - 1 community has adopted 4' of freeboard
 - 56 communities have not currently adopted freeboard
 - 68 of the 297 communities participate in the Community Rating System
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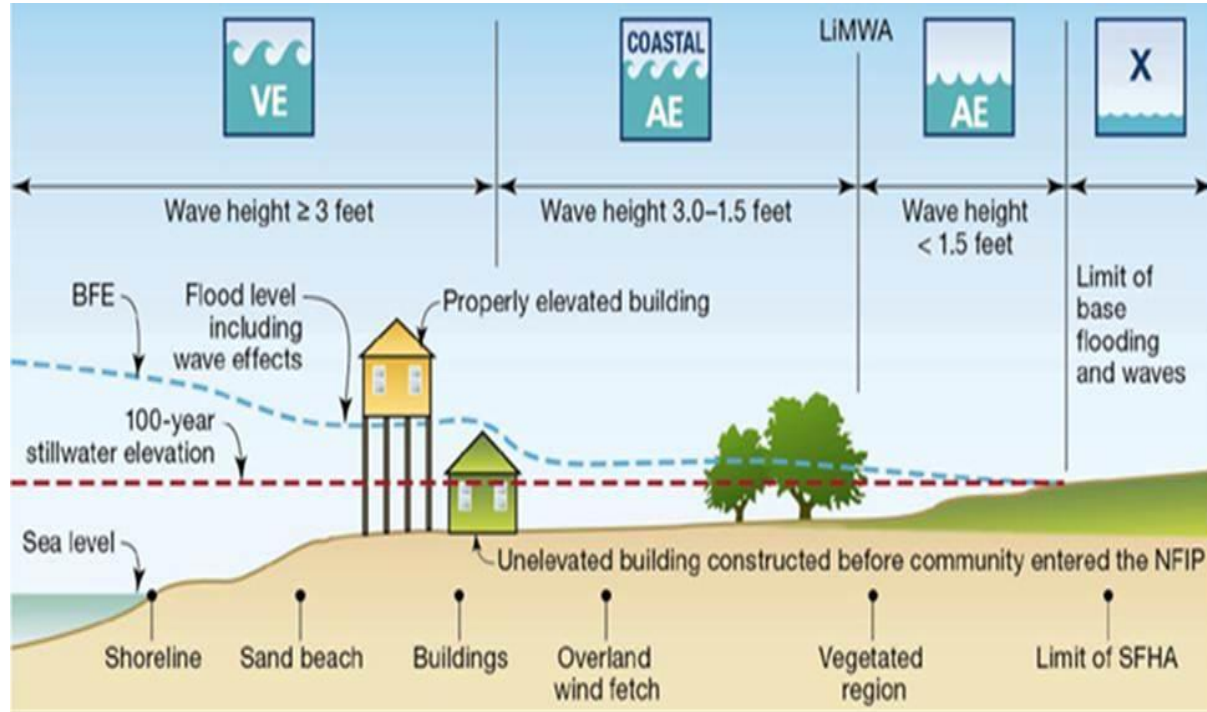


Limit of Moderate Wave Action (LiMWA)

- What is the LiMWA?
 - The LiMWA is the location where the 1 percent annual floodplain could potentially have a wave height of 1.5 to 3 feet.
 - The 1.5 foot breaking wave can potentially cause foundation failure.
 - This area between Zone VE and the LiMWA is called a Coastal A Zone.
 - The Coastal A Zone will require the same construction as the VE Zone.
 - Insurance is rated as a Zone A



Coastal Zones/LiMWA





LiMWA

- What does this mean for new construction?
 - All new and substantially improved construction that falls in this zone will have to meet Zone VE construction standards.
 - The structure must be elevated using pilings, piers or columns.
 - The use of fill will be prohibited.
 - Enclosures that fall below the Freeboard requirement of base flood elevation + 1 foot will have to be constructed of breakaway walls.
 - Flood vents will not be allowed to meet the enclosure requirements.
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V-Zone Design and Construction Certificate

- This is a Community Rating System requirement as of the first verification visit under the 2013 Community Rating System Manual. We anticipate this visit in late 2016.
 - The V-Zone Design and Construction Certificate should be used along with an elevation certificate and engineered structural plans for the foundation and breakaway walls.
 - The construction certificate provides the following:
 - Elevation information not found on an elevation certificate.
 - V Zone Design Certification Statement
 - Breakaway Wall Design Certification Statement.
 - This certificate will be required at permitting.
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Non-Conversion Agreement

- What is a Non-Conversion Agreement?
 - This agreement is used when the community determines that there are areas below the first floor that could be converted to a non-conforming use
 - Usually areas below base flood elevation that are greater than 5 ft. in height
 - What does this mean for new construction?
 - Agreement signed by the owner when applying for a Certificate of Occupancy once the structure has had final inspections
 - The agreement states that the owner will not convert or alter what has been constructed and approved
 - The agreement must be filed with the recorded deed for the property
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Cumulative Substantial Improvement/Damage

- What does this mean?
 - Substantial repairs and improvements will be counted for the preceding 10 years.
 - Example:
 - A \$200,000 home will have a \$50,000 remodel. This is a 25% remodel, the remodel is approved with no requirements.
 - 7 years later, the home is now valued at \$210,000 and will have a \$60,000 remodel.
 - $\$210,000 \times 50\% = \$105,000$
 - Cumulative improvements = $\$50,000 + \$60,000 = \$110,000 = 52\%$
 - The home would have to be brought up to FEMA compliance
 - This requirement applies only to existing, non-complaint structures



Why adopt higher standards?

Above all else - protect life and property

A side benefit: Flood Insurance Savings

Total Flood Insurance Policies	Total Insurance Premiums	Potential Savings* (20%)
7,983	\$ 5,687,377	\$ 1,137,475

* Based on a potential upgrade of Community Rating System from a 7 to a 6 rated community. Increase from 15% savings to 20% savings on policies in Special Flood Hazard Areas.



Questions ?