

CITY OF HOUSTON - CITY COUNCIL

Meeting Date:

ALL

Item Creation Date: 3/22/2018

20JCJ06 Revisions to Chapter 19 of the Houston City Code

Agenda Item#:

Background:

After the devastating flood losses in Hurricane Harvey, the 2016 Tax Day Flood and the 2015 Memorial Day Flood, the City of Houston has resolved to take every opportunity to make the City more resilient as we rebuild. In order to make new and redeveloped structures more resilient, changes to Chapter 19, the City's Floodplain Management Ordinance are proposed. The most significant of these changes are summarized below:

RULES	EXISTING	PROPOSED
REGULATED AREA	100-year	100 + 500-year
ELEVATION	100-year + 1 foot	500-year + 2 feet
ZERO NET FILL	100-year	100 + 500-year (minimal net fill permitted in the 500-year to promote positive drainage on single family residential lots)
SUBSTANTIAL IMPROVEMENTS	100-year	100-year
ELEVATION OF ADDITIONS	100-year + 1 foot	500-year + 2 feet (exemption for small additions in 500-year)
FOUNDATION	All types permitted outside floodway	All types permitted outside floodway

Justification:

Based on the Department's analysis of the impacts of Harvey, the proposed changes to Chapter 19 are justified:

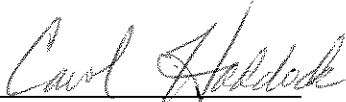
- A third of the homes in the 500-year floodplain were impacted by Harvey as compared to 19% of homes outside of the 100-year and 500-year floodplain. This indicates that there is significant flooding risk in the 500-year floodplain that should be mitigated through regulation of development.
- Pending federal rainfall and flooding studies will increase the base rainfall intensity numbers for the Houston area **which will result in** higher 100-year flood elevations and a larger 100-year floodplain. These regulations in today's 100-year and 500-year floodplains anticipate these changes by adding protective standards for areas of future conditions flood hazard in this interim period.
- Current floodplain regulations were inadequate to protect even compliant homes from flooding in Harvey. Almost five thousand (4,788) homes built to one foot above the 100-year flood elevation in the 100-year floodplain flooded in Harvey. Three thousand (3,094) of these homes were outside of the areas impacted by the reservoir releases.
- Excluding the homes impacted by the reservoir releases, 90% of homes that flooded in Harvey would have been protected if they were built 2 feet above the 500-year flood elevation
- Building homes at the higher elevation than the proposed changes require will be somewhat more expensive than building to the current standards. The higher construction costs are more than offset by insurance savings and the avoided cost of flooding. Based on numbers from the Housing and Community Development Department, which is having homes constructed with elevated floor levels, the additional cost in an example was about \$11,000.

Location:

The proposed revisions to Chapter 19 impact the 100-year and 500-year floodplains city wide.

Recommendations:

It is recommended that City Council adopt an ordinance approving revisions to Chapter 19. The proposed revisions expand the regulated area to the 500-year floodplain, increases the elevation requirement for structures from 1 foot (in 100-year only) to 2 feet above the 500-year flood elevation, and extends the no net fill provision to the 500-year floodplain.



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ATTACHMENTS:**Description**

HPW Floodplain Management Data Analysis
Chapter 19 Map

Type

Backup Material
Backup Material