



CH. 19 FLOODPLAIN ORDINANCE

HOUSTON PUBLIC WORKS

MARCH 2018

WHY CHANGE?

31% compliant homes in 100-year

33% of all structures in 500-year

HARVEY IMPACT | BUILDINGS FLOODED

FLOODPLAIN	BUILDINGS ¹ FLOODED	% OF ALL BUILDINGS
100-YEAR	30,501	27%
500-YEAR	28,459	33%
100 + 500-YEAR FLOODED	58,960	31% ²
COMPLIANT HOMES ONLY	3,094 ³	31%

¹ buildings include single-family homes, multi-family & commercial structures

² average percent

³ based on available data from ILMS and HCFCD finished floor inventory for single family homes (that did not flood from reservoir releases - Addicks, Barker, and Lake Conroe).

RULES	EXISTING CH. 19	PROPOSED CH. 19
REGULATED AREA	100-year	100 + 500-year
ELEVATION	100-year + 1 foot	500-year + 2 feet
ZERO NET FILL	100-year	100 + 500-year* <small>*No impact to sheet flow may be demonstrated in the 500-year</small>
SUBSTANTIAL IMPROVEMENTS	100-year	100-year
SUBSTANTIAL DAMAGE	100-year	100-year
FOUNDATION	All types permitted outside floodway	All types permitted outside floodway

RULES	EXISTING CH. 19	PROPOSED CH. 19
REGULATED AREA	100-year	100 + 500-year
ELEVATION OF ADDITIONS (more than 1/3)	100-year + 1 foot	500-year + 2 feet
ELEVATION OF ADDITIONS (up to 1/3)	100-year + 1 foot	100-year - 100-year + 1 foot 500-year - Not required

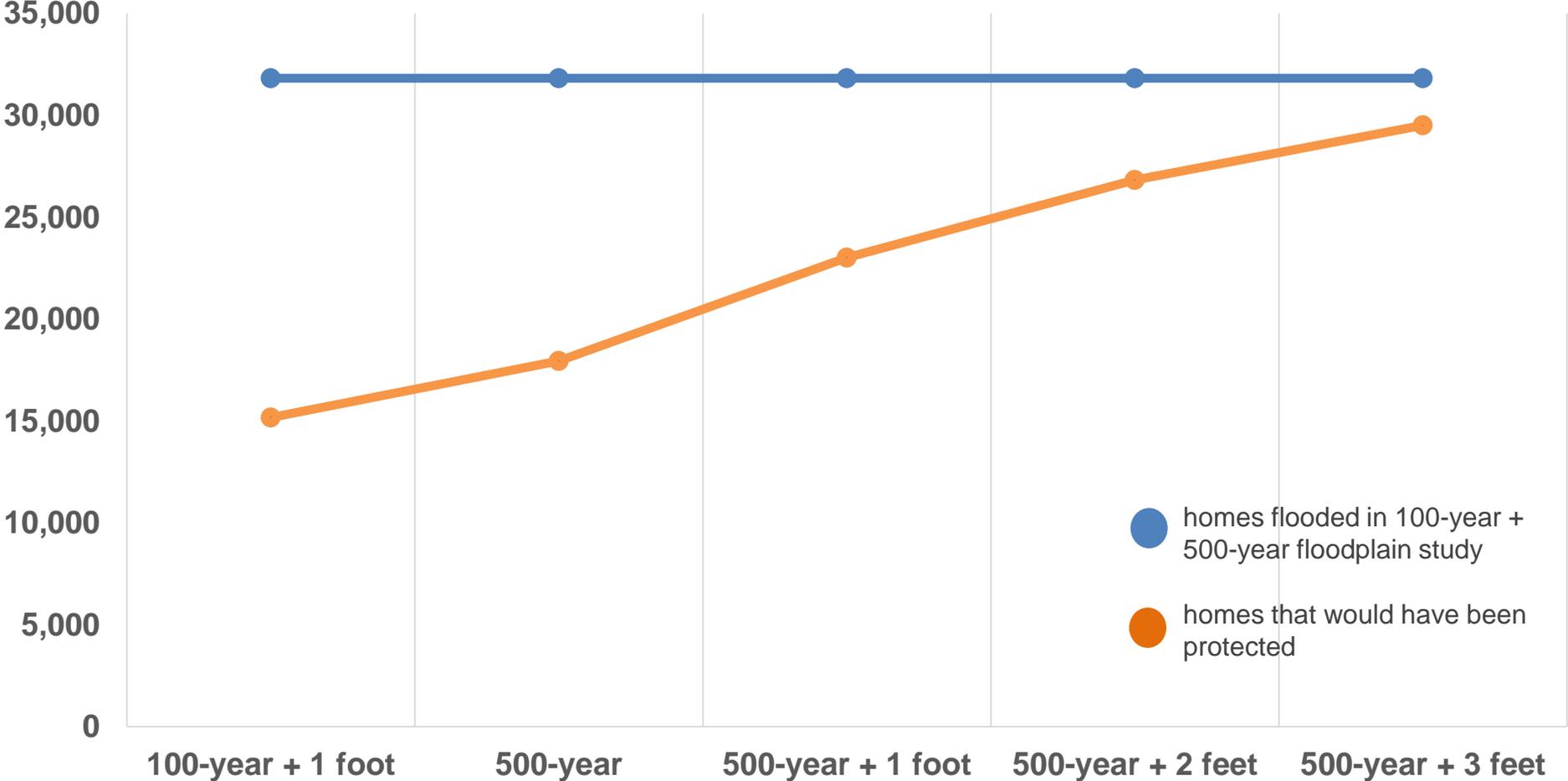
STRICTER ELEVATION COULD HAVE PROTECTED MORE HOMES

ELEVATION	100-YEAR + 1 FOOT	500- YEAR	500-YEAR + 1 FOOT	500-YEAR + 2 FEET	500-YEAR + 3 FEET
TOTAL HOMES STUDIED*	31,822				
excluding reservoir impacted areas**	26,358				
TOTAL COUNT PROTECTED	15,167	17,942	23,015	26,829	29,505
excluding reservoir impacted areas**	14,748	16,873	21,283	23,753	25,262
TOTAL % PROTECTED	48%	56%	72%	84%	93%
excluding reservoir impacted areas**	56%	64%	81%	90%	96%

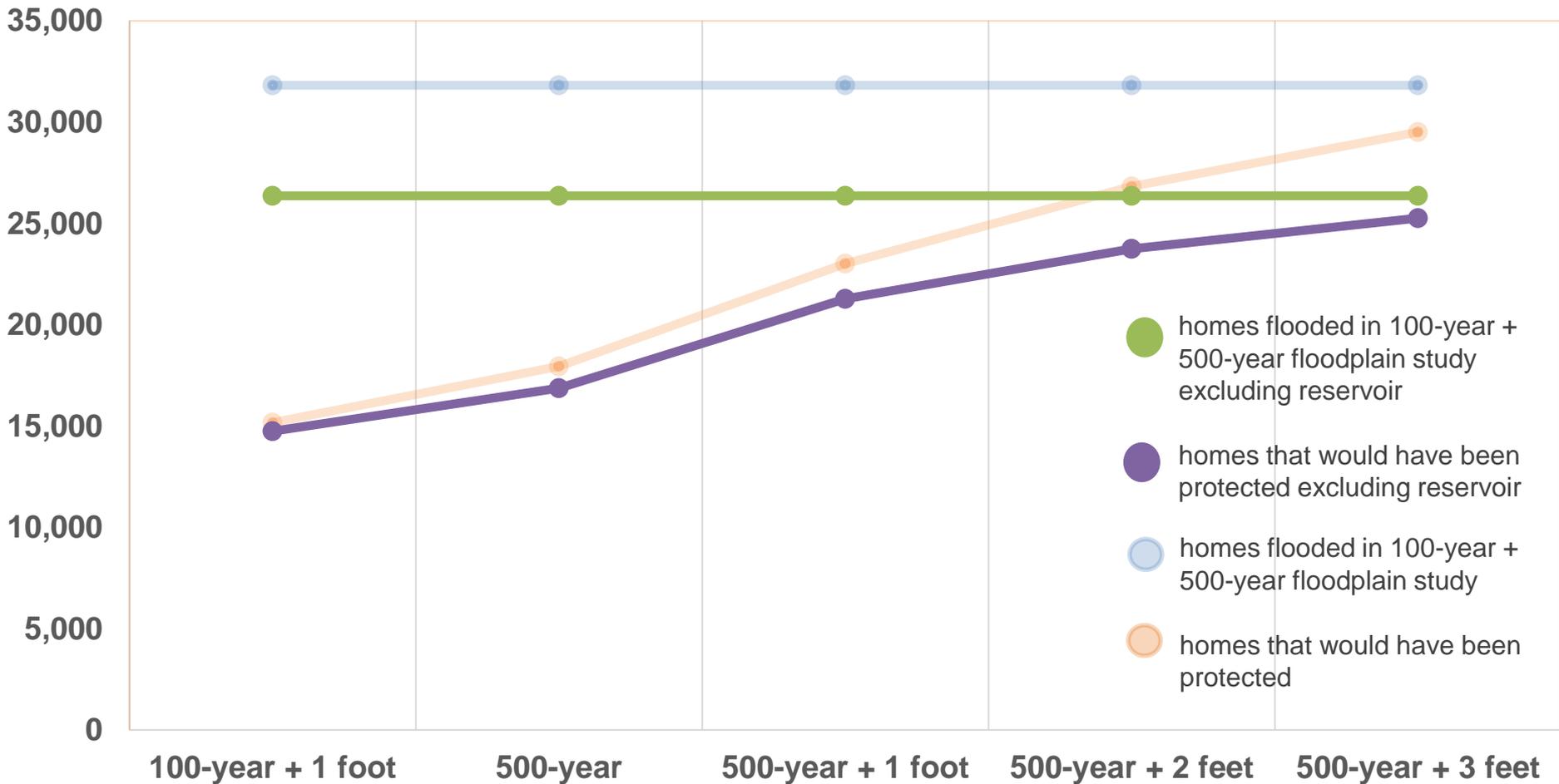
*Floodplain Management Office knew elevation of lowest living floor AND recorded flood markings after Harvey.

**includes Addicks, Barker, Lake Conroe & Lake Houston Reservoirs

HOMES THAT WOULD HAVE BEEN PROTECTED BY ELEVATION

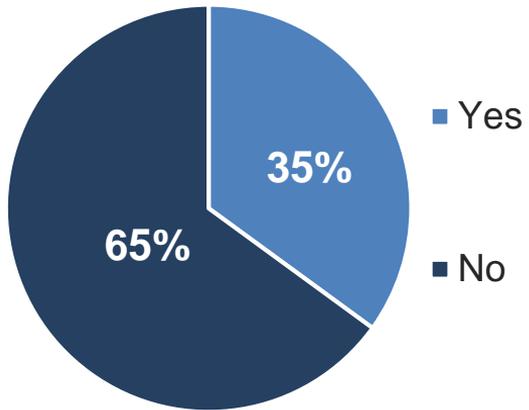


HOMES THAT WOULD HAVE BEEN PROTECTED BY ELEVATION

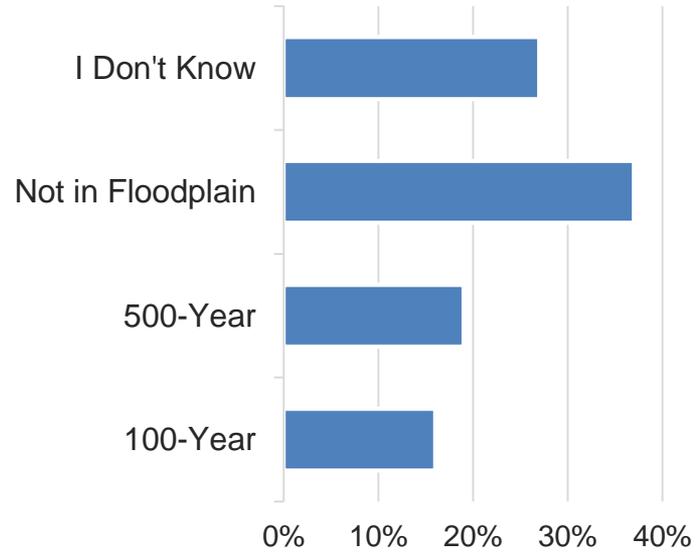


PUBLIC INPUT

Property Flooded in Harvey



Property in Floodplain



HOW WE ADDRESS & AVOID FLOODING



RESIDENTS & BUSINESSES



PUBLIC AGENCIES



EXISTING STRUCTURES

FUTURE STRUCTURES



Address Structure

- Elevate
- Demo and build compliant
- Remove (buyout)
- Floodproof (non-residential)



Reduce floodplain elevations

- Channel Improvements
- Detention/Mitigation

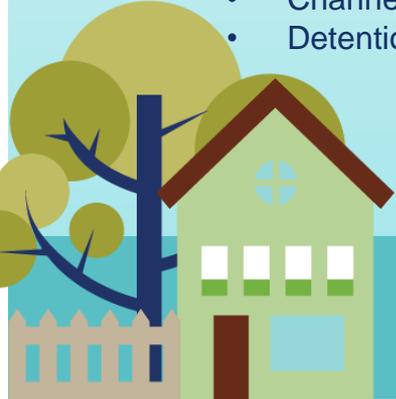


Build higher than historic flooding



Chapter 19 – Floodplain ordinance

- Elevation requirements
- Floodplain storage protection
- No impact to flood elevations



Bayou or Riverine (Floodplains)



THANK YOU

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