

North Central Texas Floodplain Administrators/ CRS Users Group

May 4th, 2020

Agenda

- (10 mins) **Mia Brown**, NCTCOG Introduction
- (10 mins) **Charlie Cook**, FEMA CRS Task Force Update
- (30 mins) **David Hiegel**, FEMA, Changes to the CRS Manual
- (10 mins) **David Hiegel**, EC Common Mistakes
- (10 mins) **Break**
- (15 mins) **Rebecca Dake**, FEMA, NFIP legislation and Risk Rating 2.0
- (30 mins) **Charlie Cook**, Value of Data Analysis RL/SD
- (30 mins) **Katherine Hawkins**, Half Associates, City of Dallas and **Clair Davis**, City of Ft. Worth, Local RL Analysis for CRS
- (10 mins) **Break**
- (15 mins) **Darrell Hahn**, Harris County SD Program
- (25 mins) **David Hiegel**, DRRRA Section 1206

FEMA Community Rating System (CRS) Task Force Update



Who
makes up
the task
force?

What does
the task
force do?

- ISO/CRS Specialists are, and will be, conducting cycle verification visits with communities remotely.
- The CRS will not issue a full new edition of the *Coordinator's Manual* in January 2021, as described in the last few issues of this newsletter. Instead, the CRS will be issuing a brief “addendum” that communities will use in conjunction with the current 2017 *Coordinator's Manual*.
- Risk Rating 2.0 will certainly be reflected in 2024 Manual changes, but too early to know details.

CRS Task Force Update Continued

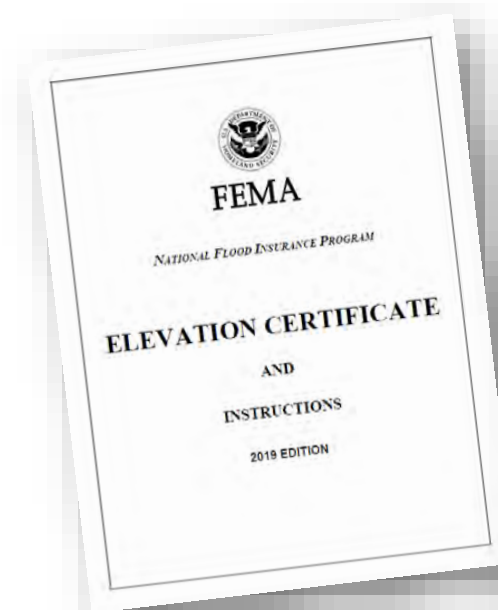
New Elevation Certificate form as of Dec 2019.

New SD Properties Mgt. Plan credit becomes available.

Possible new emphasis on sea level rise, urban flooding.

Class 8 prerequisite of 1 foot of freeboard in January.

Almost 80 percent of all CRS communities implement at least 1 foot of freeboard.



<https://www.fema.gov/media-library/assets/documents/160>

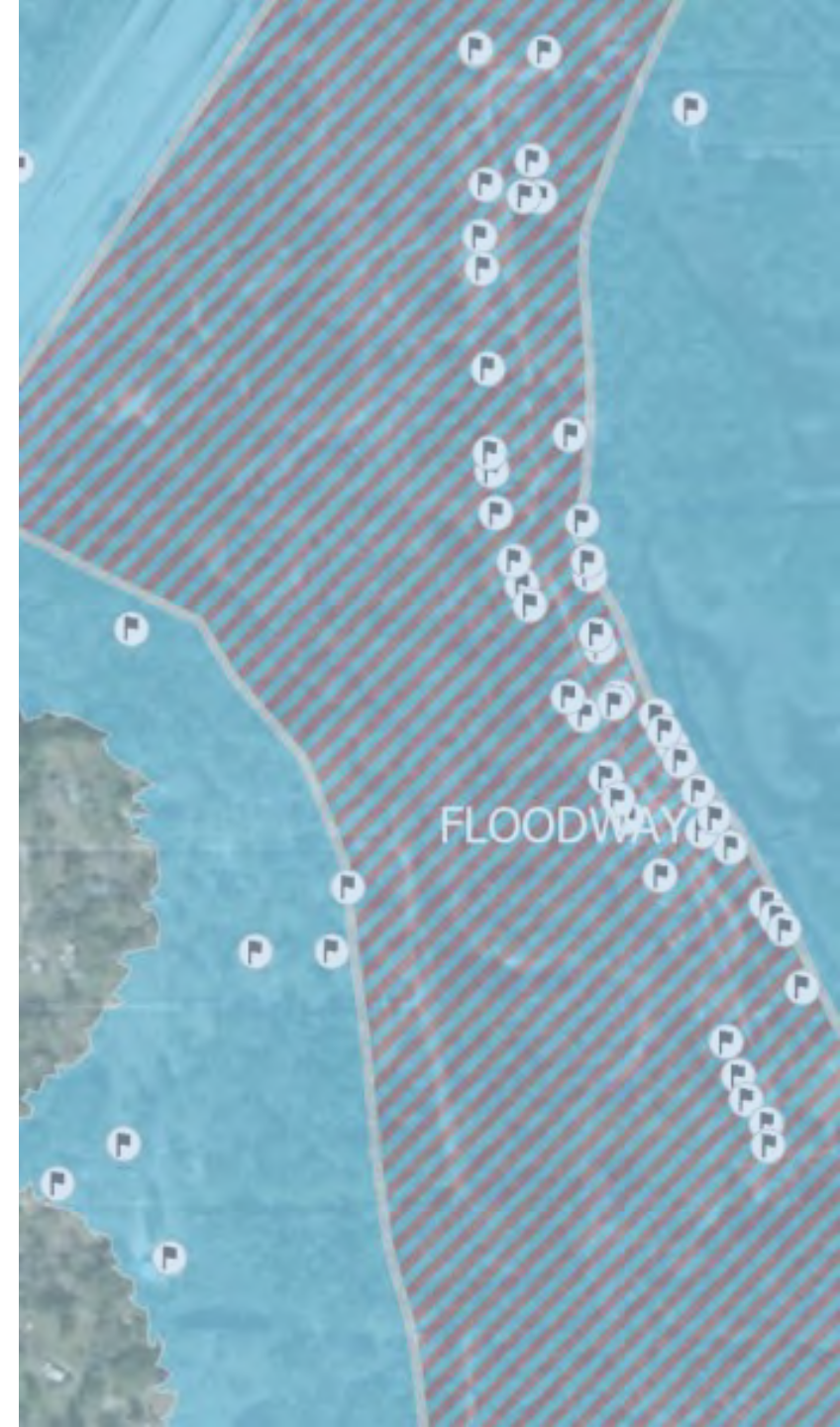


<https://www.floodsmart.gov/costOfFlooding/index.html>

FEMA HQ & Regional Floodplain Management CRS Priorities

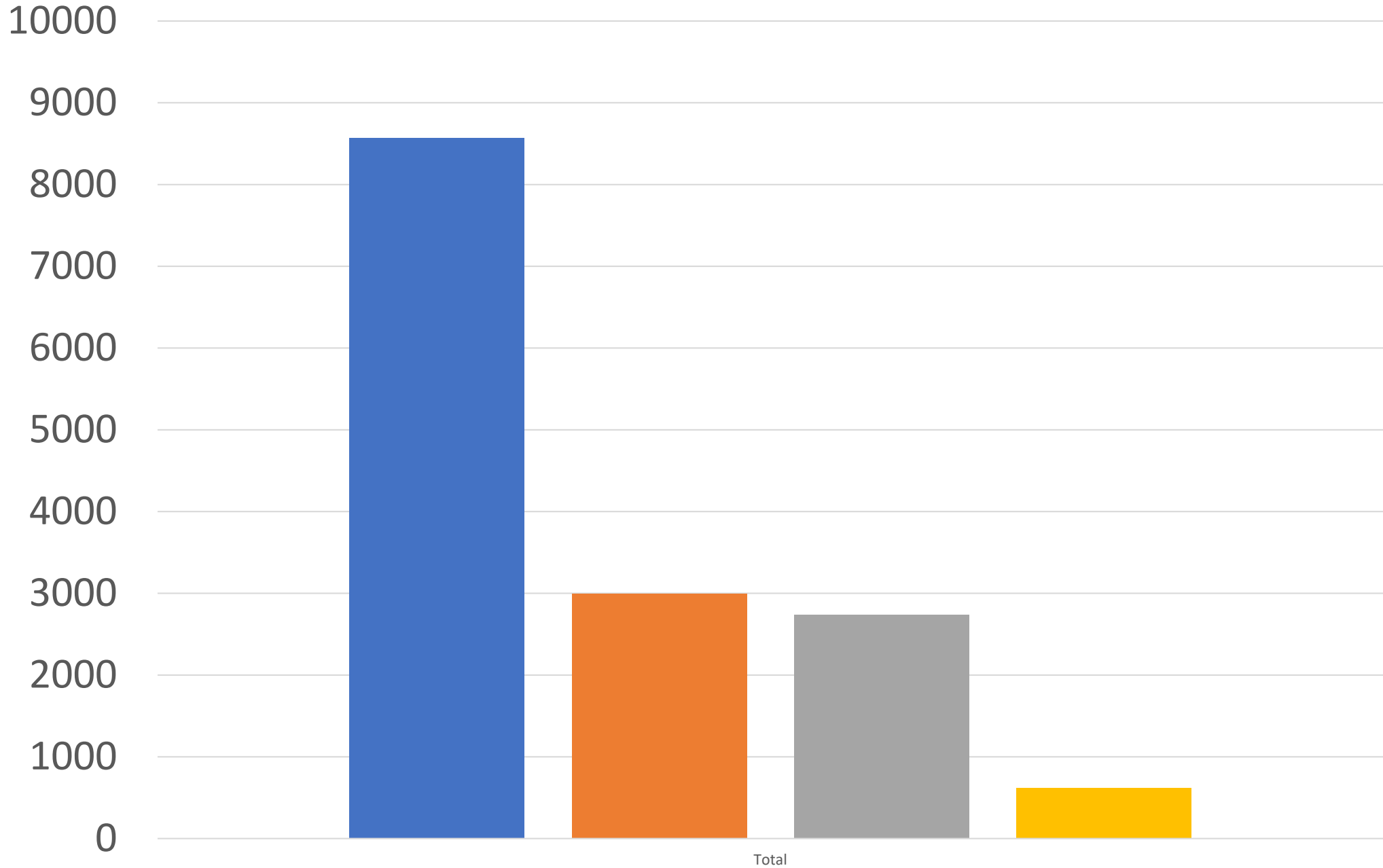
We could do better with CRS communities. . .

- Being exemplary in substantial damage compliance
- Aggressively monitor and mitigate SRL and RL properties. Leverage post-disaster opportunities
- Adopt higher standards “commensurate with risk” i.e.
 - if urbanizing. . . adopt freeboard
 - if coastal. . . enforce V Zone standards in “Coastal A Zones”
 - if growing development in Unnumbered A Zone. . . complete watershed study
- Promote flood insurance, partner with local insurance agents



DR#4263 Louisiana

Number of homes



Flood depth in inches

■ Sum of 1" to 12"

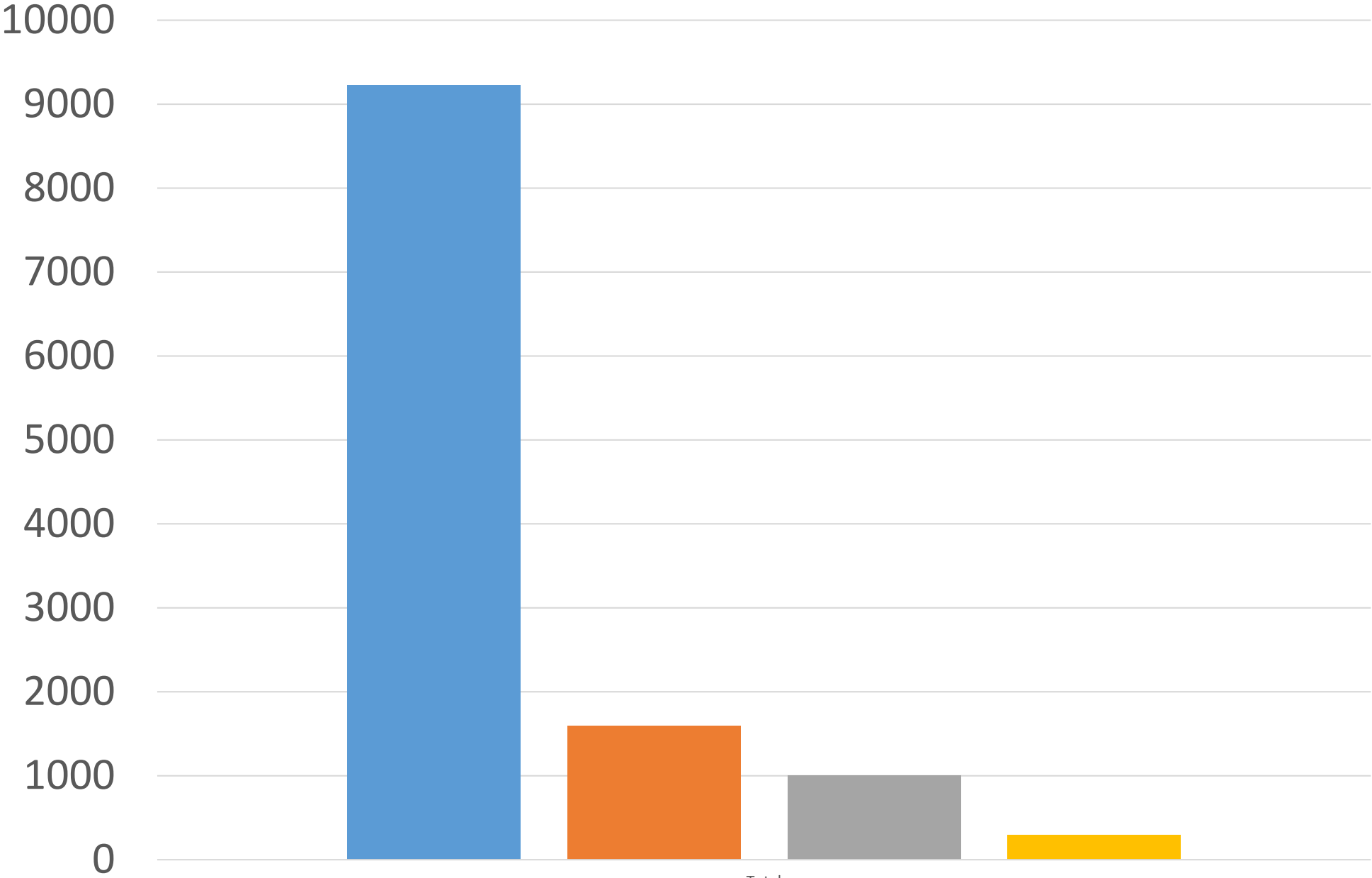
■ Sum of 12" to 24"

■ Sum of 24" to 48"

■ Sum of > 48"

Texas DR#4223 - 2015

Number of homes



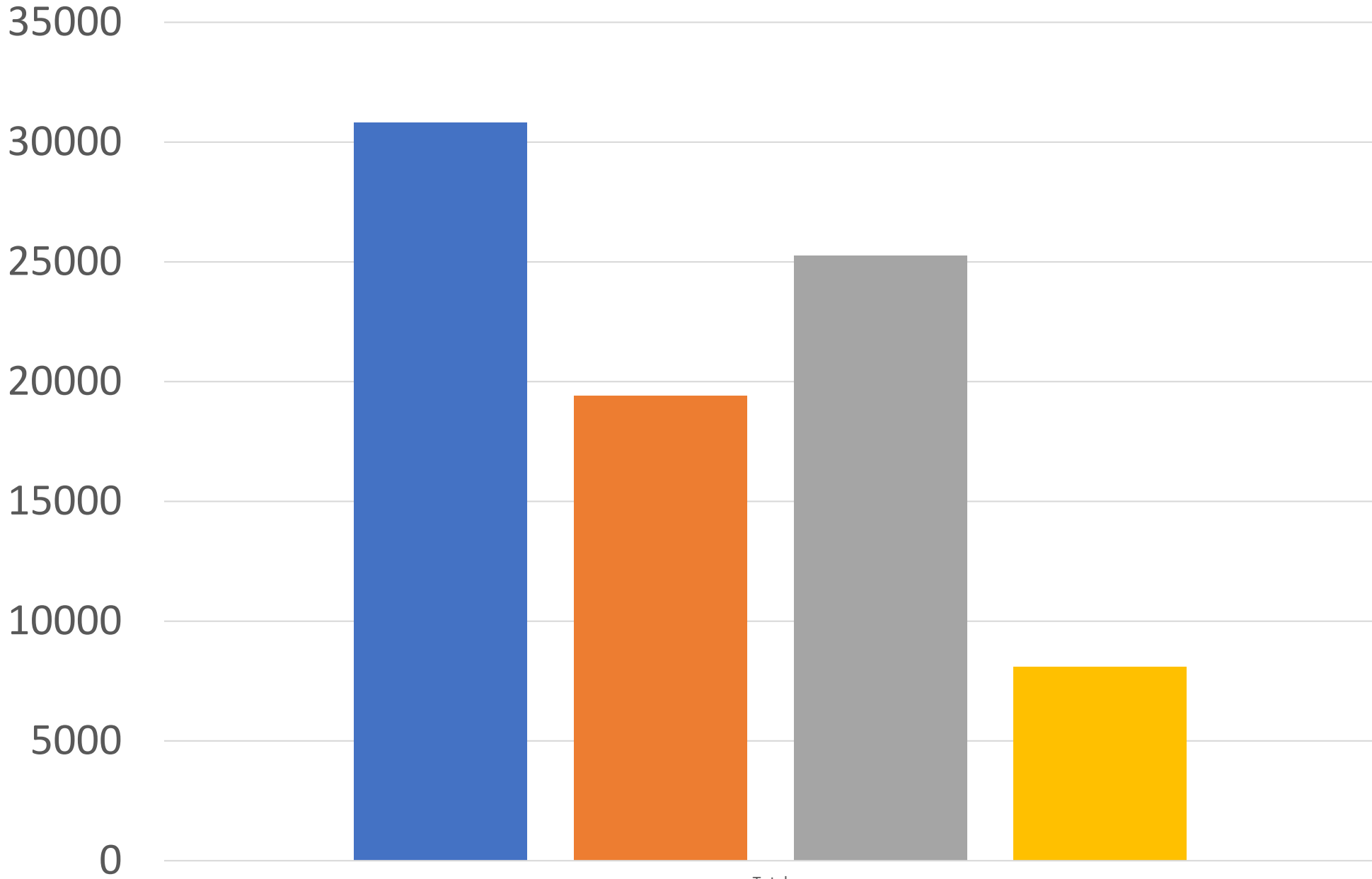
Flood depth in inches

- Sum of 1" to 12"
- Sum of 12" to 24"
- Sum of 24" to 48"
- Sum of > 48"

Total

Louisiana DR#4277

Number of homes



Flood depth in inches

- Sum of 1" to 12"
- Sum of 12" to 24"
- Sum of 24" to 48"
- Sum of > 48"

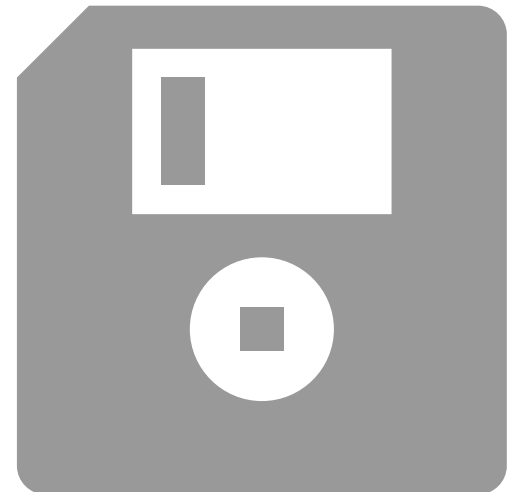
Changes to Data Sharing Agreements

Information Sharing Access Agreement (ISAA)

ISO will no longer transmit repetitive loss, or other NFIP insurance data, to communities on behalf of FEMA. All NFIP data must now be requested by the community directly from its FEMA Regional CRS Coordinator. FEMA has new forms in place and new protocols for distribution of NFIP data. Your FEMA Regional office will help you meet the new protocols in advance of sending you the repetitive loss data you need to complete your CRS requirements. Communities interested in applying to the CRS will need to follow the same procedures as participating communities.

IMPORTANT: When you do request repetitive loss data from your FEMA Regional Office for CRS purposes, please be sure to request the repetitive loss data **based on the NFIP definition of repetitive loss**. If you are requesting repetitive loss data for grant purposes, please be aware the two definitions are not the same, and will result in a different list of properties.

Remember floppy disks? The data is not shared on a floppy disk.



Requesting an ISAA from FEMA R6

FEMA has updated the NFIP data sharing process, we will need a data sharing agreement in place before we can share individual property information. Provide the information on the attached word document and a NFIP data sharing agreement will be drafted. The draft NFIP data sharing agreement will have to be approved by the FEMA/Federal Insurance and Mitigation Administration (FIMA)/Federal Insurance Directorate (FID) and the FEMA Privacy Office. Once the draft agreement has been approved, a copy will be sent to your community for signature.

Please note FEMA/FIMA/FID will not approve NFIP data sharing agreements that indicate data sharing with contractors unless proper documentation is provided for review.

Please keep in mind all of this is subject to change.



A signed NFIP Information Sharing Access Agreement (ISAA) will need to be prepared and approved by the Federal Insurance Directorate (FID) before NFIP data can be shared. Please provide the following information that will be used to prepare the document:

1. Long Name of Community/Entity requesting NFIP data:

2. Short Name of Community/Entity requesting NFIP data:

3. State the *SPECIFIC PURPOSE AND USE* of the NFIP data: *BE AS DESCRIPTIVE AS POSSIBLE, include what NFIP data (policy, claim, RL/SRL) is needed and how it will be used!*

4. Will data be shared with a contractor? Yes/No If Yes, please provide the following:
[CONTRACTOR LONG NAME (SHORT NAME)]

Contract Number and date: *if sharing with a contractor is indicated documentation must be provided, it should be current and match information in Sec4 or sharing will not be approved*

Specific reason for sharing and use of data by contractor:

e.g. Contractor will be using NFIP claim, policy and RL/SRL data to develop HM Plan.

5. At least one POC but no more than five:

NAME:

TITLE:

TELEPHONE NUMBER:

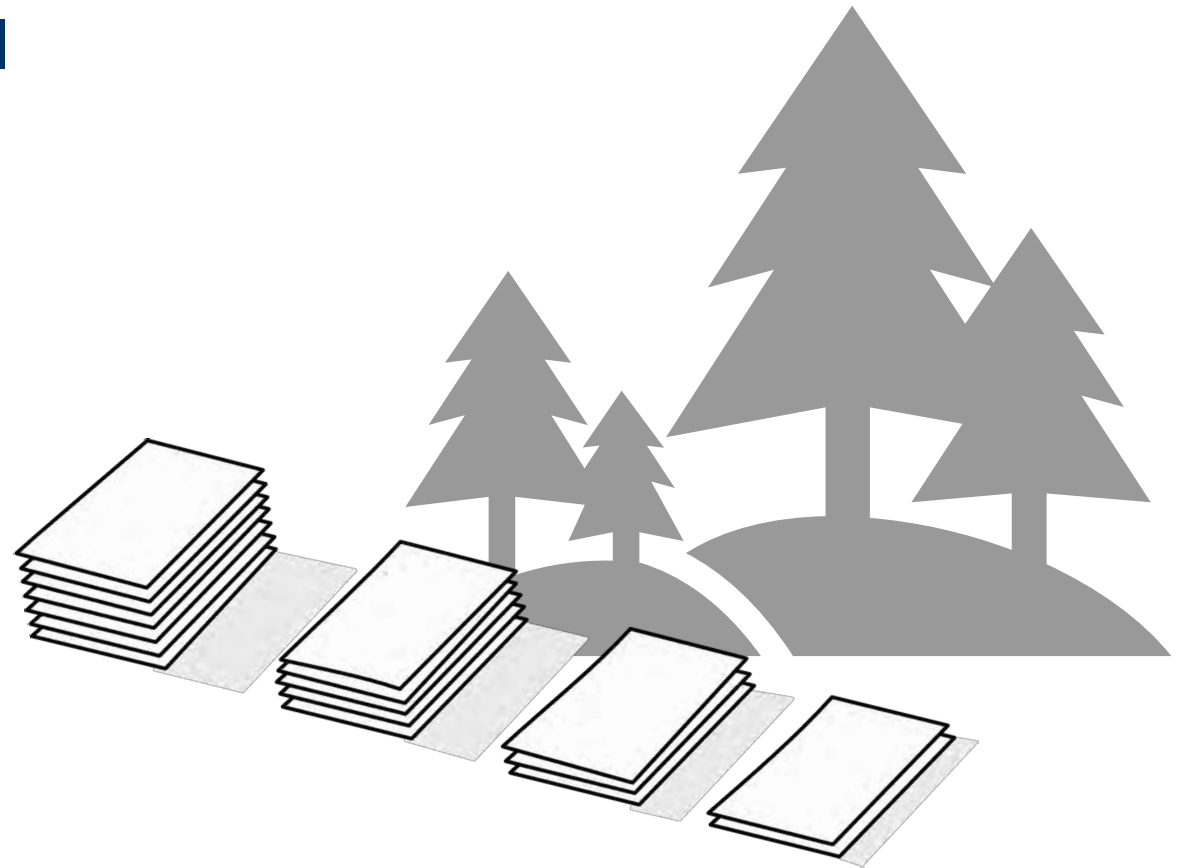
EMAIL:

6. Name and title of person with authority to sign data sharing agreement for the Community/Entity:

The completed ISAA will be sent to **Community/Entity** for signature. The signed ISAA should be returned to Region 6 with **CONTRACT COPY (if applicable)** to be sent to FEMA FID for approval. Upon approval, the data will be provided to **Community/Entity** in a secure format.

2021 Addendum to the 2017 CRS Coordinator's Manual

- No new *Coordinator's Manual* in January 2021. Instead, brief “addendum” to use with current 2017 *Coordinator's Manual*. No new CRS Coordinators Manual until January 2024.
- Addendum to include CRS credit opportunities for floodplain species assessments, management plans for potential substantial damage, and freeboard requirements for class 8 or better.



CRS New Credit Opportunities

- **Activity 370** (Flood Insurance Promotion).
- **Activity 510** (Floodplain Management Planning) additional credit for the development of floodplain species assessments under natural functions plan (NFP).
- **Activity 510** (Floodplain Management Planning) and substantial damage properties management plans.
- **Activity 610** (Flood Warning and Response) for attention to substantial damage in flood response operations plans.



Class 8 Prerequisite

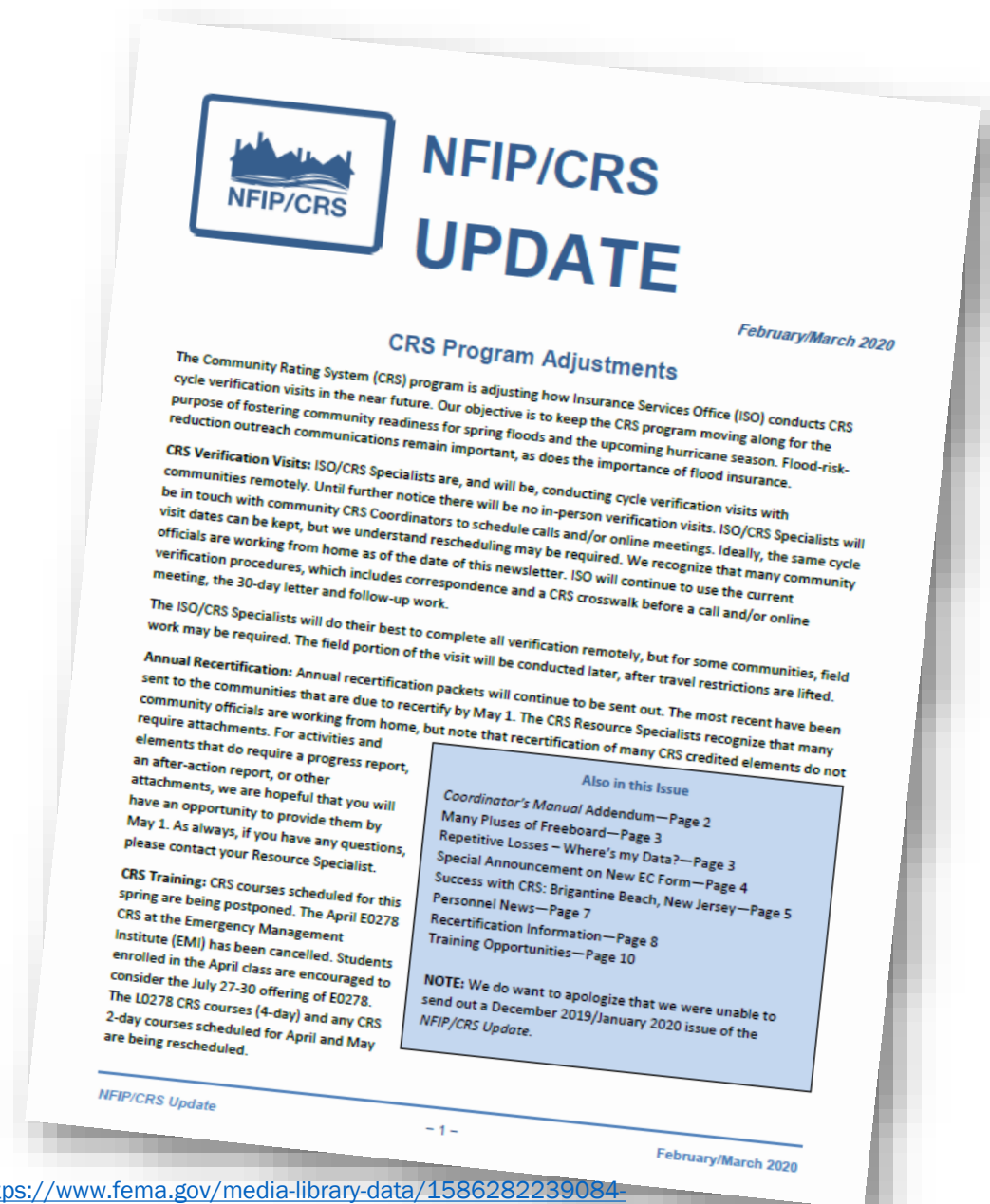
- (1) The community must meet all the Class 9 prerequisites.
- (2) The community must adopt and enforce at least a 1-foot freeboard requirement (including equipment or mechanical items) for all residential buildings constructed, substantially improved, and/or reconstructed due to substantial damage throughout its Special Flood Hazard Area (SFHA) where base flood elevations (BFEs) have been determined on the Flood Insurance Rate Map (FIRM) or in the Flood Insurance Study (FIS), except those areas that receive open space credit under Activity 420 (Open Space Preservation).

Freeboard

From CRS Newsletter:

Prerequisite for achieving Class 8—enforcement of a freeboard standard for residential buildings.

- At verification cycle visits after January 2021, a CRS community will be required to enforce at least 1 foot of freeboard for all new and substantially improved residential buildings in its numbered A and V Zones in order to become (or remain) a CRS Class 8 or better community.
- Communities that do not implement freeboard will be limited to a CRS Class 9 rating.



Class 8 Prerequisite – Freeboard

- Effective January 1, 2021
- Implemented in next CRS verification cycle visit
- Needed to become or remain Class 8
- At least 1 foot freeboard
- Residential structures, new and SI
- Freeboard adoption
- Freeboard enforcement



Class 8 Prerequisite – Freeboard

- Expectations:

- 2021 CRS Coord. Manual *Addendum*
- Letters to all CRS communities
- FAQs and fact sheets
- ISO will check
 - Adopted in FDPO
 - Enforcing 80%
- No change to freeboard point schedule
 - If you add it, get your points!
- Mechanical, equipment, ducts, etc., YES



Class 9 Prerequisite

Elevation certificates being 90 percent correct **each year** and the development of an Elevation Certificate management plan.

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number <input type="text"/>			B2. County Name <input type="text"/>		B3. State <input type="text"/>
B4. Map/Panel Number <input type="text"/>	B5. Suffix <input type="text"/>	B6. FIRM Index Date <input type="text"/>	B7. FIRM Panel Effective/ Revised Date <input type="text"/>	B8. Flood Zone(s) <input type="text"/>	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) <input type="text"/>
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input checked="" type="checkbox"/> FIS Profile <input type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					

If there is detailed information, you must use the FIS Profile for the most accurate BFE, not just the elevation shown on the FIRM.

CRS Review of ECs & Common Errors

2019 Final Report

Centralized Elevation Certificate Review



Number of ECs (percent of correct ECs)



Note: Use the New EC Form

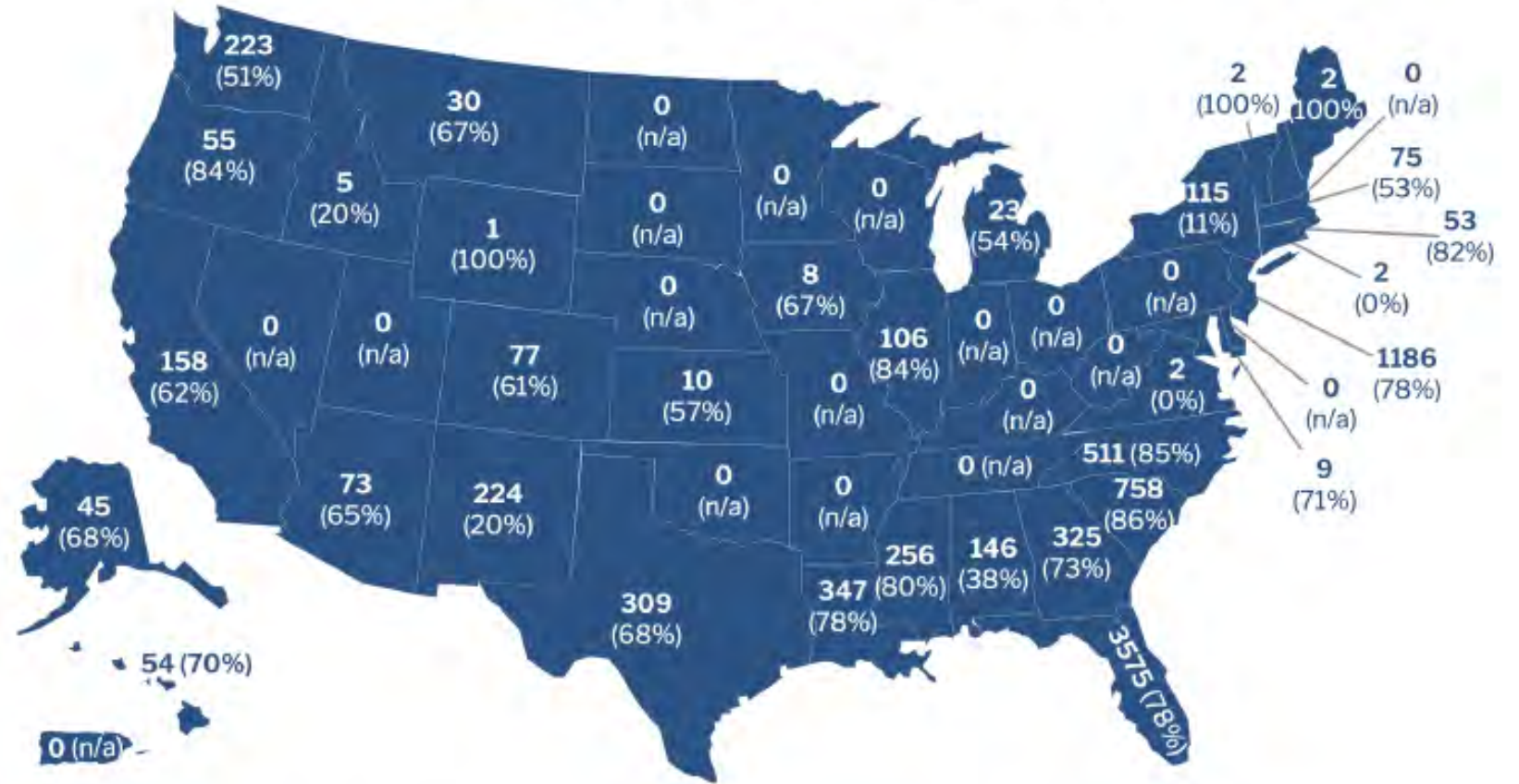
Any Elevation Certificates signed and dated February 21, 2020 or later must be on the [new form](#).

I	II	III	IV	V	VI	VII	VIII	IX	X
198 (56%)	2243 (70%)	355 (76%)	8635 (80%)	160 (73%)	1716 (65%)	34 (55%)	142 (59%)	742 (60%)	569 (60%)



Number of ECs (percent correct: 1st round)

**At
Cycle**

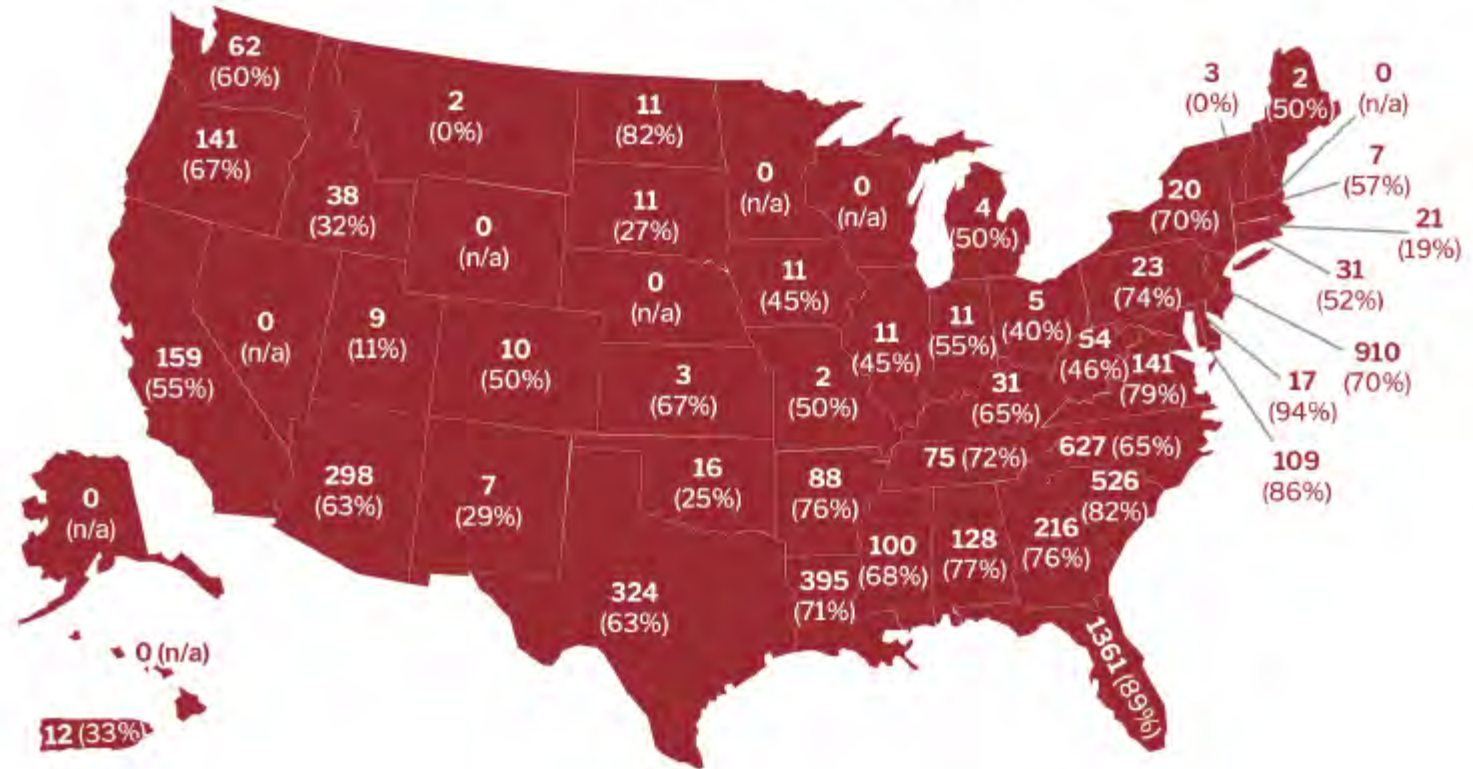


I	II	III	IV	V	VI	VII	VIII	IX	X
134 (66%)	1301 (71%)	11 (63%)	5571 (80%)	129 (80%)	880 (62%)	18 (62%)	108 (63%)	285 (64%)	328 (76%)

At Recertification

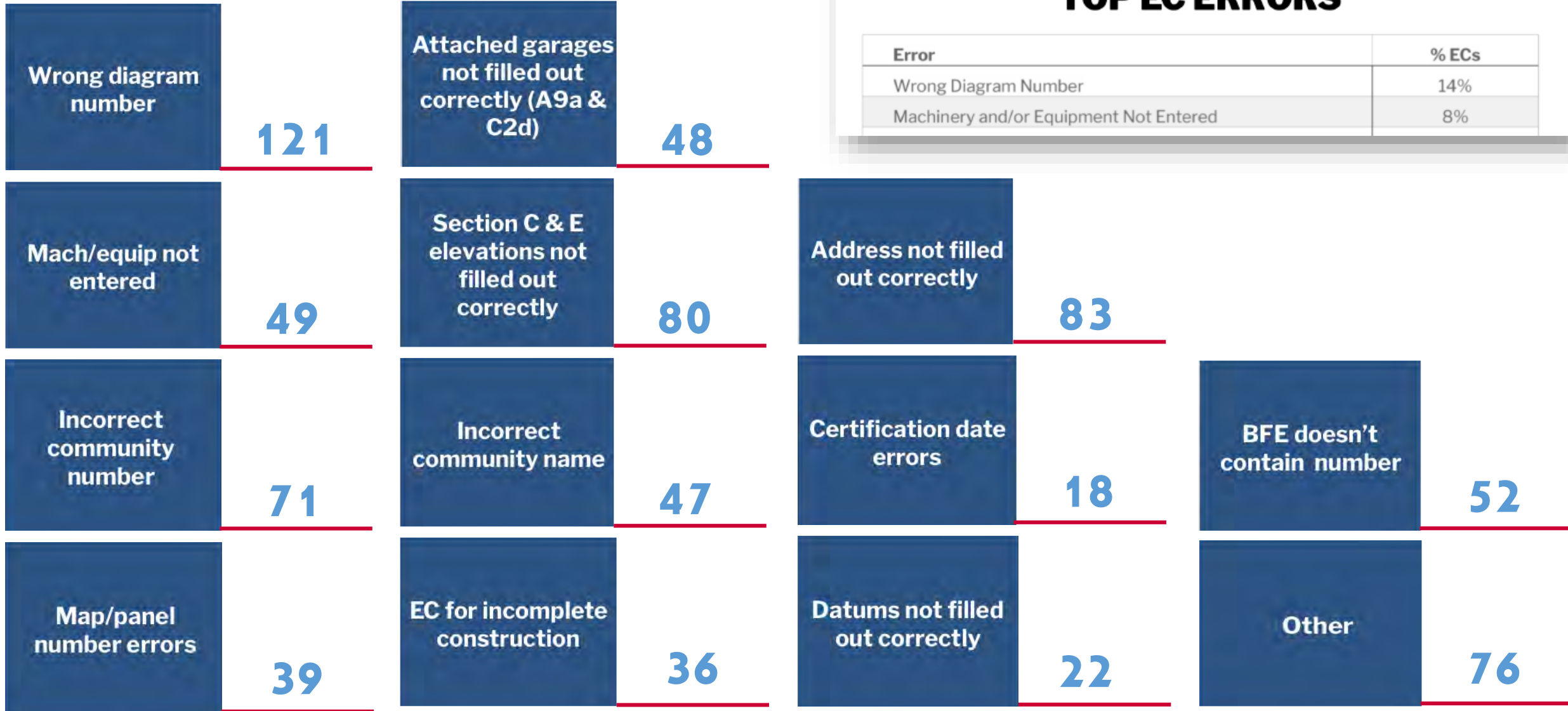


Number of ECs (percent of correct ECs)



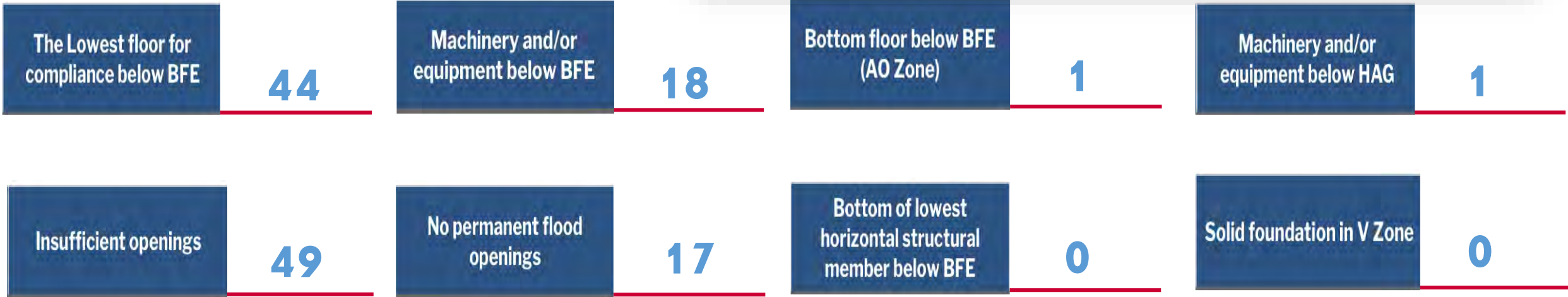
I	II	III	IV	V	VI	VII	VIII	IX	X
64 (39%)	942 (69%)	344 (77%)	3064 (80%)	31 (48%)	836 (67%)	16 (50%)	34 (50%)	457 (60%)	241 (59%)

EC Errors by Type in Texas, 2019 ISO



Top Potential Compliance Issues, Texas, 2019 ISO

TEXAS

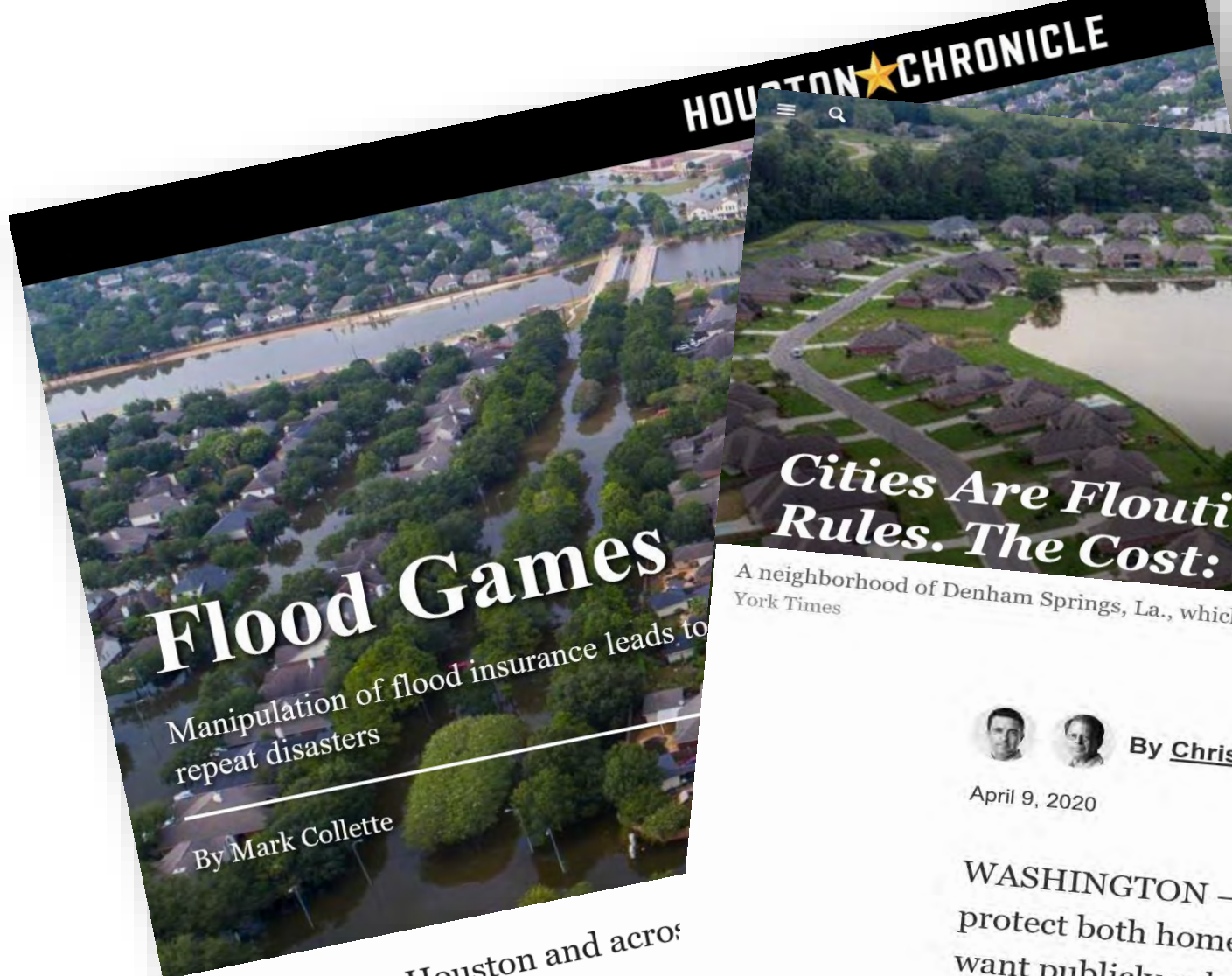


NATIONALLY TOP POTENTIAL COMPLIANCE ISSUES

Potential Compliance Issue	% ECs
Inadequate Openings	11%
Lowest Floor Below BFE	8%
Machinery Below BFE	4%
Solid Wall Foundation in V Zone	0.02%

Break

10 Minutes



Flood Games

Manipulation of flood insurance leads to repeat disasters

By Mark Collette

Officials in Houston and across the country are the central pillar of the taxpayer-funded National Flood Insurance Program. Making sure coverage is available to...

<https://www.houstonchronicle.com/business/article/Flood-Games-How-victims-local-officials-and-an-13031069.php>



The New York Times

Cities Are Flouting Flood Rules. The Cost: \$1 Billion.

A neighborhood of Denham Springs, La., which suffered heavy flooding in 2016. Bryan Tarnowski for The New York Times



By Christopher Flavelle and John Schwartz

April 9, 2020



WASHINGTON — It's a simple rule, designed to protect both homeowners and taxpayers: If you want publicly subsidized flood insurance, you can't build a home that's likely to flood.

<https://www.nytimes.com/2020/04/09/climate/fema-flood-insurance.html>

NFIP-Related Legislation

Over 30 NFIP-related bills

Repetitive Loss--H.R. 5776 and S.2088: Repeatedly Flooded Communities Preparation Act

Requires participating communities to assess repeatedly damaged areas and develop, submit to FEMA, and implement a community-specific plan for mitigating continuing flood risks to the repeatedly damaged areas. The bill also requires FEMA to provide data regarding the property addresses and dates of claims associated with insured properties within the community, upon requests.



[Save this Search](#) | [Download Results](#)

Refined by:

1-21 of 21

BILL

1. [H.R.3167](#) — 116th Congress (2019-2020)

National Flood Insurance Program Reauthorization Act of 2019

Sponsor: [Rep. Waters, Maxine \[D-CA-43\]](#) (Introduced 06/10/2019) **Cosponsors:** (0)

Committees: House - Financial Services; Transportation and Infrastructure

Committee Reports: [H. Rept. 116-262](#)

Latest Action: House - 10/28/2019 Placed on the Union Calendar, Calendar No. 210. ([All Actions](#))

Tracker:

BILL

2. [S.2088](#) — 116th Congress (2019-2020)

Repeatedly Flooded Communities Preparation Act

Sponsor: [Sen. Scott, Tim \[R-SC\]](#) (Introduced 07/11/2019) **Cosponsors:** (1)

Committees: Senate - Banking, Housing, and Urban Affairs

Latest Action: Senate - 07/11/2019 Read twice and referred to the Committee on Banking, Housing, and

Tracker:

BILL

3. [H.R.5776](#) — 116th Congress (2019-2020)

Repeatedly Flooded Communities Preparation Act

Sponsor: [Rep. Blumenauer, Earl \[D-OR-3\]](#) (Introduced 02/06/2020) **Cosponsors:** (7)

NFIP Reauthorization

- Congress must periodically renew the NFIP's statutory authority to operate.
- In December, the NFIP reauthorization was extended to September 30, 2020. Congress must now reauthorize the NFIP by no later than 11:59 pm on **September 30, 2020**.
- H.R. 3167 is the House bill under discussion, which passed in the House Financial Services Committee last summer. S. 2187 is the Senate bill under consideration.

NFIP Reauthorization Bills

S. 2187: This bill would extend the authorization of the NFIP to September 30, 2024 and institute several reforms, including:

- Means-tested affordability program
- Monthly installment payment of premiums
- Increases maximum coverage limits
- Increase mitigation investments for high-risk properties
- Raises the ICC amount available to \$60,000 and expands the use of funds to pre-mitigation efforts

H.R. 3167: This bill would extend the authorization of the NFIP to September 30, 2024 and institute several reforms, including:

- Demonstration program for affordability
- Monthly installment payment of premiums
- State revolving loan funds for flood mitigation
- Raises the ICC amount available to \$60,000 and expands the use of funds to pre-mitigation efforts
- Voluntary community-based flood insurance pilot program

Risk Rating 2.0

Originally planned for single-family homes planned for October 1, 2020, it's been deferred to October 1, 2021, and it will include all structures, not just single family structures.

- Additionally, this extension also allows for all National Flood Insurance Program (NFIP) policies – including, single-family homes, multi-unit and commercial properties – to changeover to the new rating system at one time instead of a phased approach, as originally proposed.
- Questions? Email: FEMA-NFIP-INSURANCE-TRANSFORMATION@fema.dhs.gov.

DELIVERING RATES
THAT:

ARE FAIR
ARE CLEAR
USE CURRENT
TECHNOLOGY &
DATA

USING POLICY
FORMS THAT:

ARE SIMPLE
ALIGN WITH
INDUSTRY
PROVIDE CHOICE

Priorities

- **Make Rates Fairer:** Fixes the current cross-subsidization of higher-cost homes from lower-cost homes
- **Reflect More Types of Flood Risk:** Current rates do not account for heavy rainfall (i.e., Harvey) and other types of flooding (levee, tsunami, etc.), nor do they account for the full range of flood frequency (currently flood is depicted simply as “on” or “off”)
- **Increase understanding of flood risk with intuitive rating variables:** Current rating variables are complex, hard to understand, and create steep cliffs
- **Help Americans rebuild their lives more quickly by closing the insurance gap:** Policies that are easier to sell and buy = more insurance coverage = more Americans having their lives rebuilt more quickly

Rating Characteristics

The new risk rating plan will use easier-to-understand rating characteristics for each property, such as:

- distance to the coast or another flooding source
- different types of flood risk
- the cost to rebuild a home

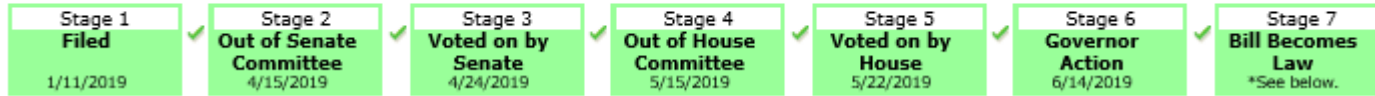
By reflecting the cost to rebuild, the new rating plan will also aim to deliver fairer rates for owners of lower-value homes.

Texas Seller's Disclosure Notice

2019's Texas Senate Bill 339

Bill: SB 339

Legislative Session: 86(R)



Amends the Property Code to require the standard seller's disclosure notice for residential real property to include certain notice regarding the property's flood insurance coverage; previous flooding, water penetration, and flood damage claims and assistance; and the property's location in a floodplain, floodway, flood pool, or reservoir.

Effective September 1, 2019

Questions 6, 7 & 8

Seller's Disclosure Notice Concerning the Property at _____ (Street Address and City) Page 3 09-01-2019

5. Are you (Seller) aware of any item, equipment, or system in or on the Property that is in need of repair? No (if you are not aware). If yes, explain (attach additional sheets if necessary). Yes (if you are aware)

6. Are you (Seller) aware of any of the following conditions? Write Yes (Y) if you are aware, write No (N) if you are not aware.

- Present flood insurance coverage
- Previous flooding due to a failure or breach of a reservoir or a controlled or emergency release of water from a reservoir
- Previous water penetration into a structure on the property due to a natural flood event

Write Yes (Y) if you are aware, and check wholly or partly as applicable, write No (N) if you are not aware.

- Located wholly partly in a 100-year floodplain (Special Flood Hazard Area-Zone A, V, A99, AE, AO, AH, VE, or AR)
- Located wholly partly in a 500-year floodplain (Moderate Flood Hazard Area-Zone X (shaded))
- Located wholly partly in a floodway
- Located wholly partly in a flood pool
- Located wholly partly in a reservoir

If the answer to any of the above is yes, explain (attach additional sheets if necessary): _____

*For purposes of this notice:
100-year floodplain means any area of land that:
(A) is identified on the flood insurance rate map as a special flood hazard area, which is designated as Zone A, V, A99, AE, AO, AH, VE, or AR on the map;
(B) has a one percent annual chance of flooding, which is considered to be a high risk of flooding; and
(C) may include a regulatory floodway, flood pool, or reservoir.
500-year floodplain means any area of land that:
(A) is identified on the flood insurance rate map as a moderate flood hazard area, which is designated on the map as Zone X (shaded); and
(B) has a two-tenths of one percent annual chance of flooding, which is considered to be a moderate risk of flooding.
Flood pool means the area adjacent to a reservoir that lies above the normal maximum operating level of the reservoir and that is subject to controlled inundation under the management of the United States Army Corps of Engineers.
Flood insurance rate map means the most recent flood hazard map published by the Federal Emergency Management Agency under the National Flood Insurance Act of 1968 (42 U.S.C. Section 4001 et seq.).
Floodway means an area that is identified on the flood insurance rate map as a regulatory floodway, which includes the channel of a river or other watercourse and the adjacent land areas that must be reserved for the discharge of a base flood, also referred to as a 100-year flood, without cumulatively increasing the water surface elevation of more than a designated height.
Reservoir means a water impoundment project operated by the United States Army Corps of Engineers that is intended to retain water or delay the runoff of water in a designated surface area of land.

7. Have you (Seller) ever filed a claim for flood damage to the property with any insurance provider, including the National Flood Insurance Program (NFIP)?* Yes No. If yes, explain (attach additional sheets as necessary): _____

*Homes in high risk flood zones with mortgages from federally regulated or insured lenders are required to have flood insurance. Even when not required, the Federal Emergency Management Agency (FEMA) encourages homeowners in high risk, moderate risk, and low risk flood zones to purchase flood insurance that covers the structure(s) and the personal property within the structure(s).

8. Have you (Seller) ever received assistance from FEMA or the U.S. Small Business Administration (SBA) for flood damage to the property? Yes No. If yes, explain (attach additional sheets as necessary): _____

FORM NO. OF-H



<https://www.trec.texas.gov/forms/sellers-disclosure-notice>

Question 6

Are you (Seller) aware of any of the following conditions?

Present Flood Insurance Coverage?

- If the seller has a grandfathered rate, the policy rate can be transferred to the buyer at closing
- No waiting period if you purchase flood insurance in connection with making, increasing, extending, or renewing your mortgage loan

Previous flooding due to a failure or breach of a reservoir or a controlled or emergency release of water from a reservoir?

Previous water penetration into a structure on the property due to a natural flood event?

Question 6 (cont.)

Write Yes (Y) if you are aware, and check wholly or partly as applicable, write No (N) if you are not aware.

___ In a 100-year floodplain (Special Flood Hazard Area-Zone A, V, A99, AE, AO, AH, VE, or AR)

___ In a 500-year floodplain (Moderate Flood Hazard Area-Zone X (shaded))

___ In a floodway

___ In a flood pool

___ In a reservoir

If the answer to any of the above is yes, explain (attach additional sheets if necessary).

Question 7

Have you (Seller) ever filed a claim for flood damage to the property with any insurance provider, including the NFIP?

- Buyers can request the flood loss history from the seller. Call the National Flood Insurance Program (NFIP) General Referral Call Center at:

1-800-427-4661, option 1

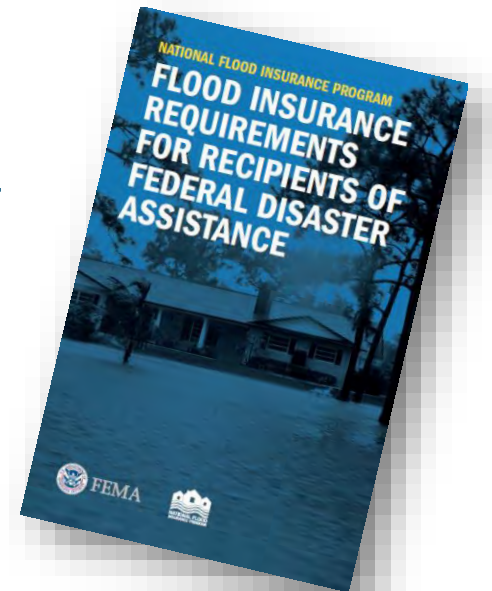
Only homeowners can call. Must prove ownership.
Loss history will be mailed to the owner.



Question 8

Have you (Seller) ever received assistance from FEMA or the U.S. Small Business Administration (SBA) for flood damage to the property?

- Homeowners in the SFHA who receive Federal disaster assistance must purchase and maintain flood insurance coverage on the flood-damaged property for as long as the flood-damaged building exists. If you sell your home after receiving Federal disaster assistance, you must inform the new owner of the requirement to maintain flood insurance coverage.



Substantial Damage (SD) & Repetitive Loss (RL)

- **SD** means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. In the SFHA and below BFE. These homes are not allowed to rebuild as is, but must elevate, or demolish.

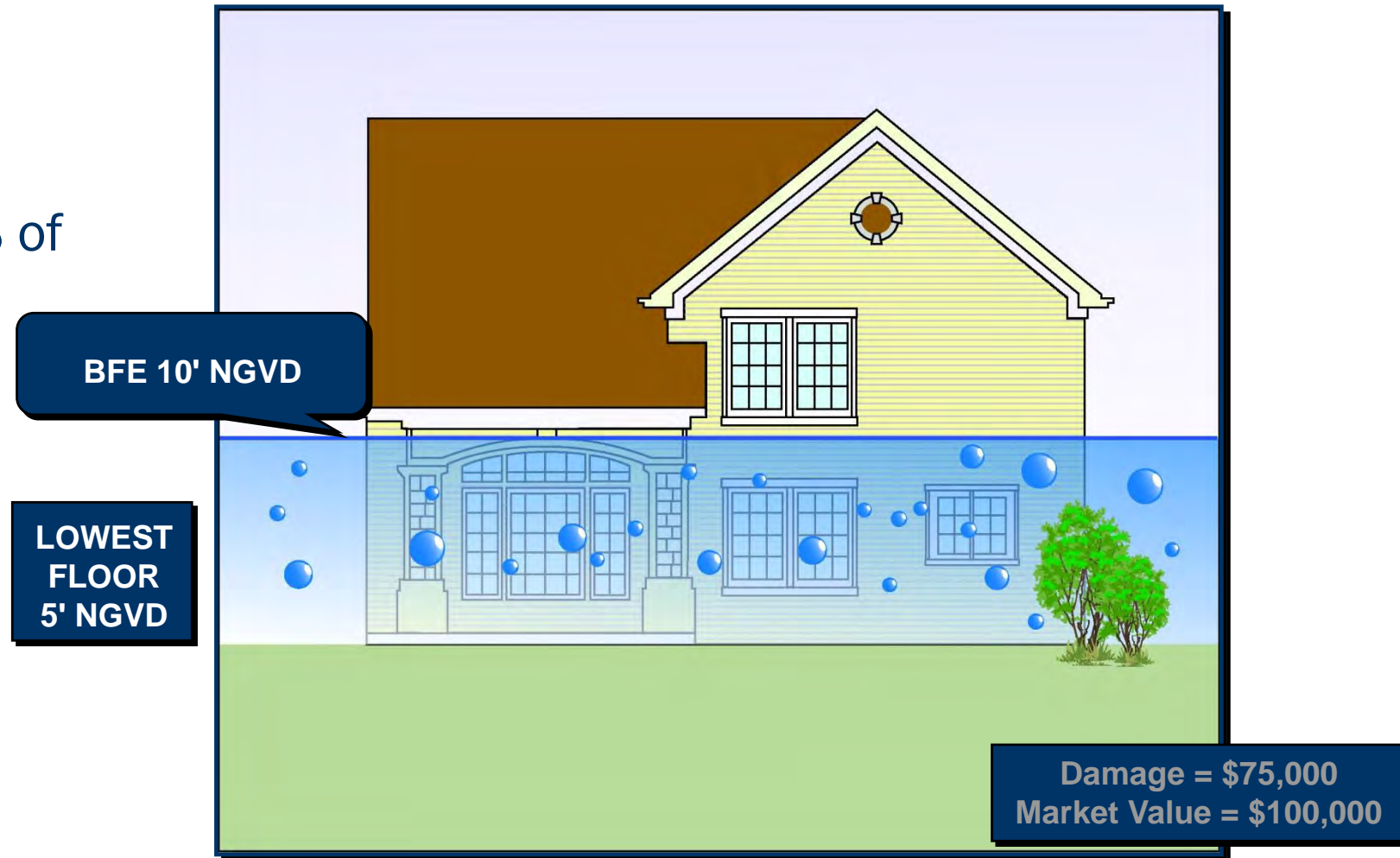
- **RL** properties are any insurable building for which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling 10-year period, since 1978. An RL property may or may not be currently insured by the NFIP.

Communities that do not enforce Substantial Damage are faced with probation and/or suspension from the NFIP.



Substantial Damage

- Structures typically
 - Below BFE
 - Cost to repair \geq 50% of market value
 - Any damage source



Flood Insurance Requirement

National Flood Insurance Reform Act (NFIRA) of 1994

Applies to flood disaster events in the SFHA.

- **Homeowners** must purchase and maintain coverage on the property for as long as it exists. Requirement stays with the property.
- **Renters** must maintain coverage for as long as they live at the rental property. Requirement ends if they move from that property.
- Citizens will not receive federal disaster funds again if they do not obtain and maintain flood insurance. Many times these are not on the rep loss list due to them not having flood insurance. Only homes with flood insurance can be included on the rep loss list.



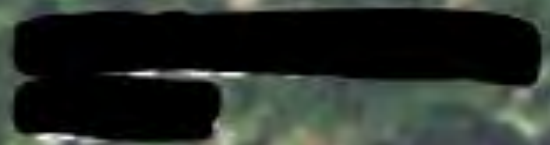


**6 claims, Bldg. \$362,209.23, Contents
\$215,950.10**



Tom's Story

AREA OF MINIMAL FLOOD HAZARD
Zone X



Tom

FLOODWAY
Zone AE

161.5 FEET

eff. 8/18/2014

161 FEET

Zone AE 159 FEET

158.8 FEET

M

M

K

K



- Tom is a retired Mason
- In 1974 he built his house where he poured his own foundation
- The construction was pre firm
- Tom purchased flood insurance and maintained a policy for 46 years
- Toms house was mapped into the SFHA and lays in an AE zone
- Tom has had 25 NFIP claims
- Tom has received a total NFIP payout of \$644,557.69
- In 2001 the House was sold for \$57,103
- In 1998 the house received \$ 29,994.86 in building damages (Substantial Damage)
- From 1998, Toms house had 10 further NFIP claims totaling \$365,021.33 (this is money that should have been saved)

- Tom referred to his house as a flood house.
- Rents the house out and makes needed repairs to get new renter in after each event
- No issues finding renters
- Discloses flooding hazard clearly and has encouraged renters to get flood insurance policy in addition to his as the owner
- This behavior displaces the emotional, financial, and physical burden from the owner onto the vulnerable renter population.
- Continues to benefit from NFIP program

- Toms total NFIP Payout \$644,557.69
- Years with policy 46
- Average pay out a year : $\$644,557.69 / 46 = \$14,012.12$

- Premium 1990- $\$302.00$: $\$14,012.12 = \46 : $\$1$
- Premium 2000- $\$716.00$: $\$14,012.12 = \20 : $\$1$
- Premium 2011- $\$1,175.00$: $\$14,012.12 = \12 : $\$1$
- Premium 2013- $\$1,683.00$: $\$14,012.12 = \8 : $\$1$
- Premium 2019- $\$4,492.00$: $\$14,012.12 = \3 : $\$1$
- Assuming the highest premium across 46 years: $\$206,632.00$
: $\$644,557.69 =$ **net loss of \$437,925.69**

Reposs Structures with 10 or more claims

- Community: 9
- State: 256
- Region: 662
- Nation: 1,439

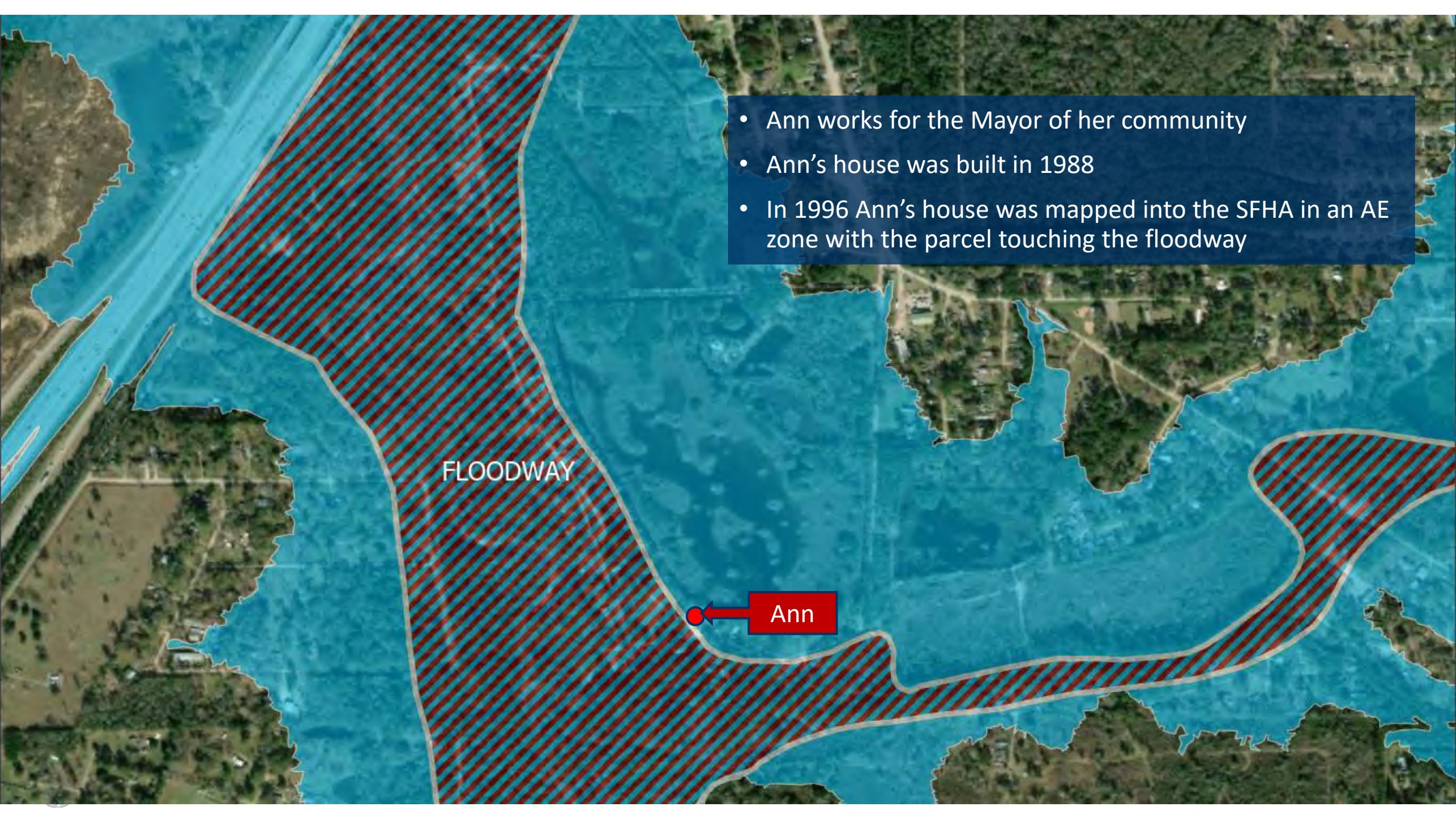


Ann's Story

- Ann works for the Mayor of her community
- Ann's house was built in 1988
- In 1996 Ann's house was mapped into the SFHA in an AE zone with the parcel touching the floodway

FLOODWAY

Ann



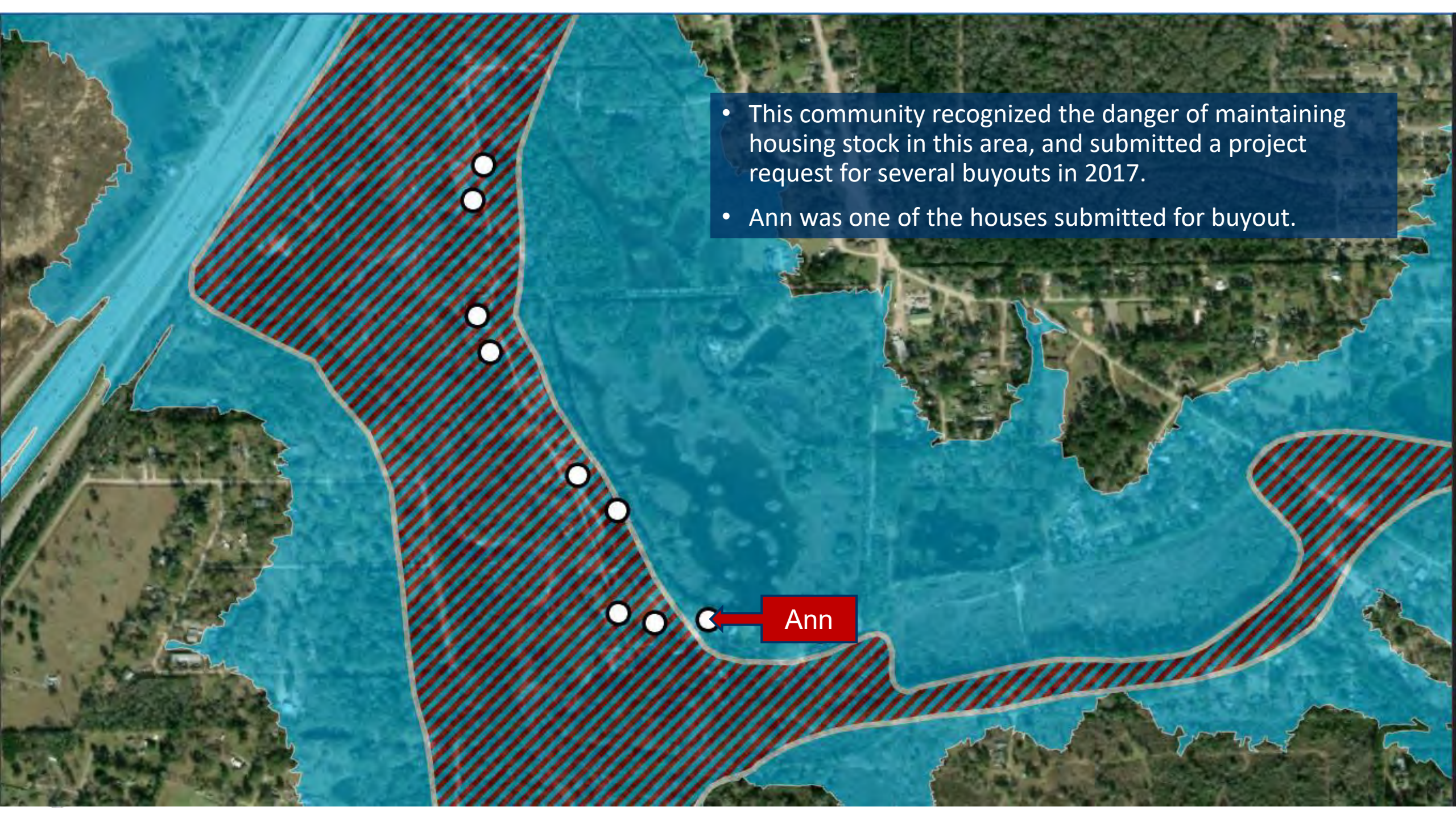


- Ann's Neighborhood was heavily impacted in 2017
- These points represent Substantial Damage
- This community failed to make Substantial Damage determinations and allowed many of these home owners to repair.
- Others chose to abandon their house entirely (blight)

FLOODWAY

Ann

- This community recognized the danger of maintaining housing stock in this area, and submitted a project request for several buyouts in 2017.
- Ann was one of the houses submitted for buyout.

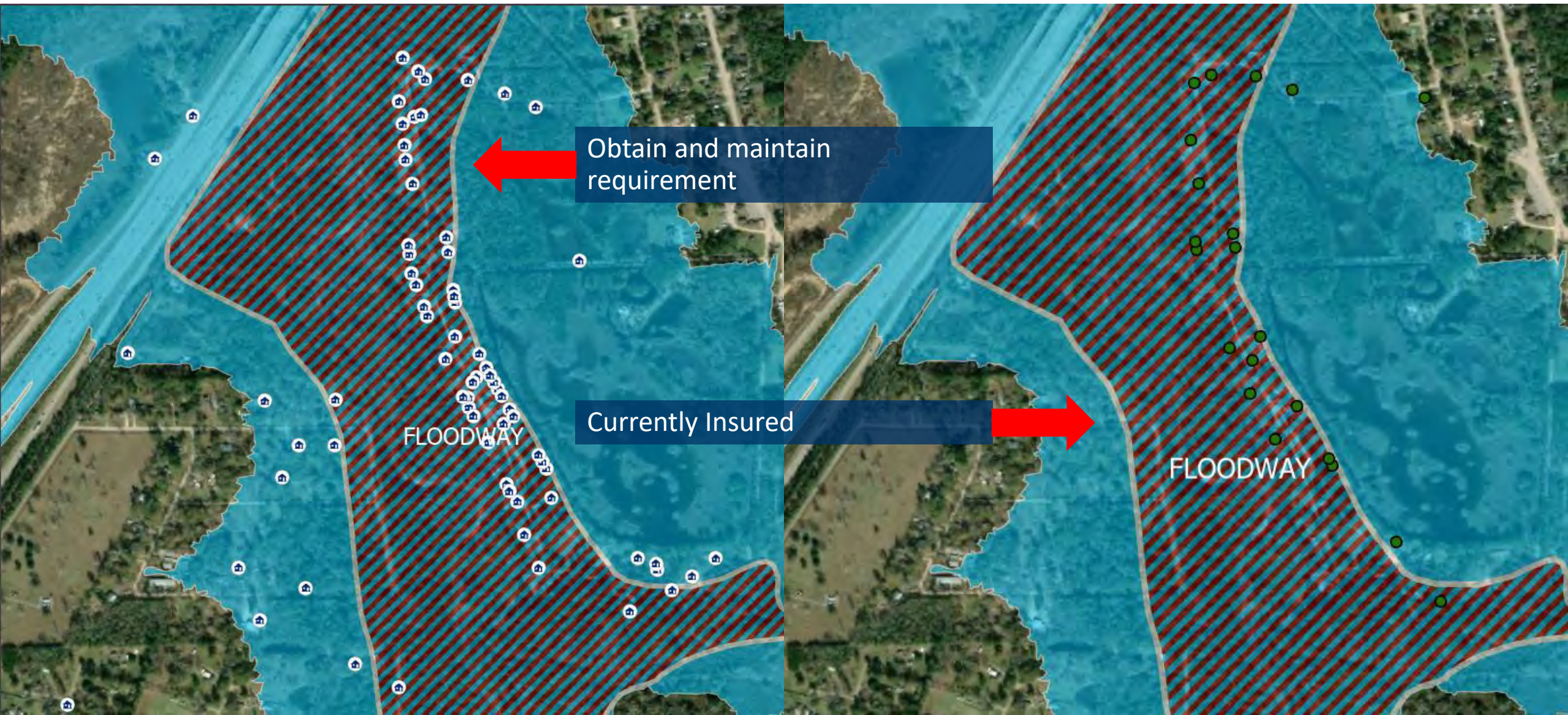




- However in 2019 Ann's neighborhood was flooded again, leaving many of the previously repaired homes Substantially Damaged once more.
- Two substantial damage occurrences in two years.
- The grant which would have bought out many these properties, including Ann, has been in a pending status since 2017.

FLOODWAY

Ann





Before



After



- Every house in this Community flooded
- High Water Marks were recorded over 7ft



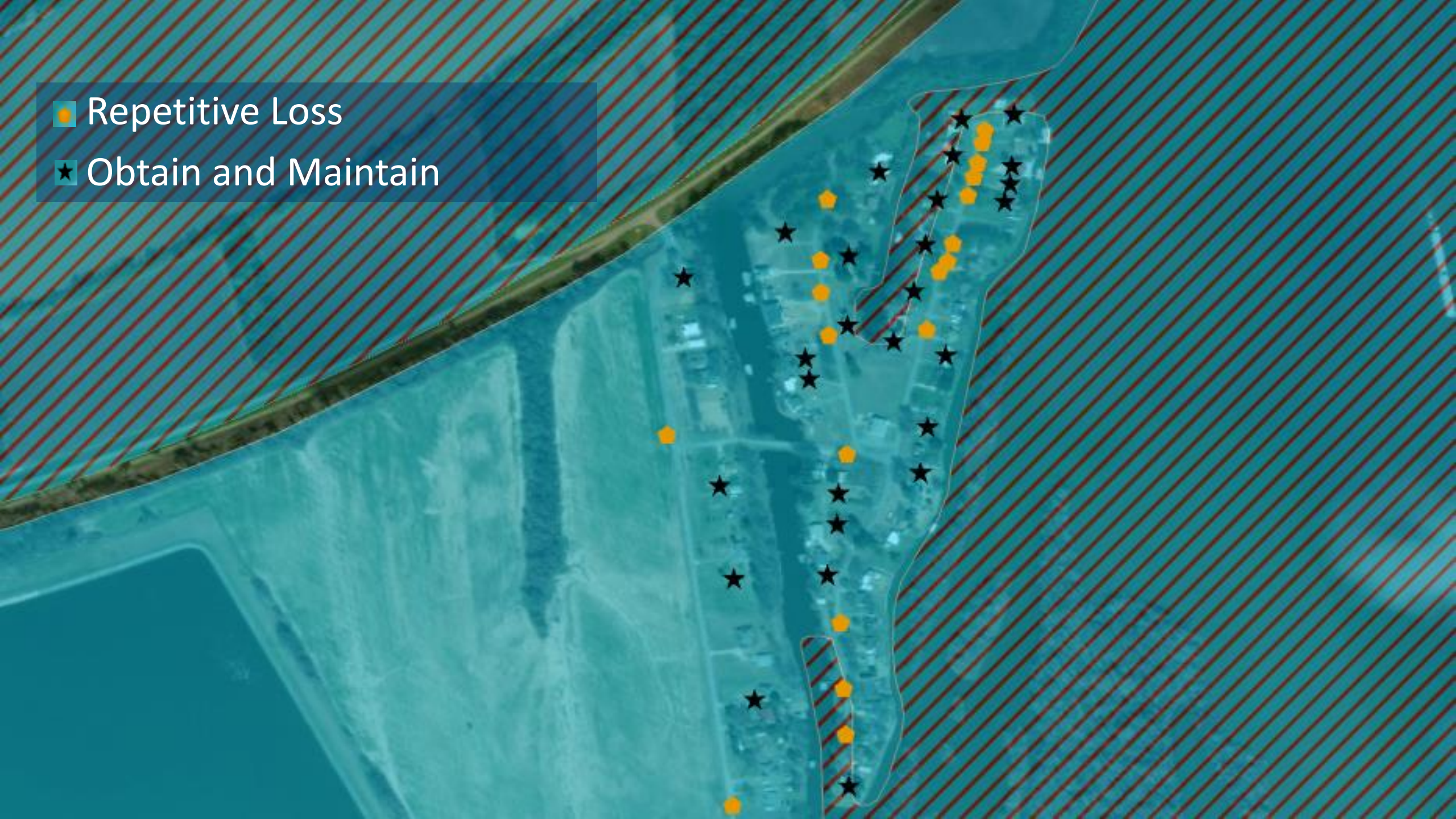


- Nearly every house in the community has an obtain maintain requirement
- There currently are no NFIP policies
- This entire community will not be eligible for federal assistance next disaster
- Where does HMGP play a role in this?



■ Repetitive Loss

★ Obtain and Maintain



Repetitive Loss Property Analysis

CITY OF DALLAS

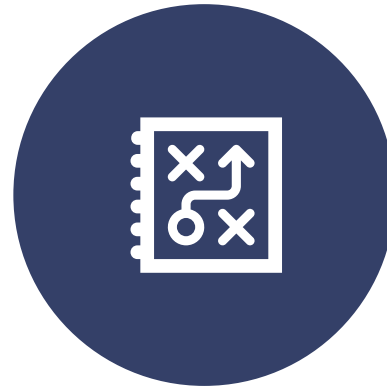
CRS USERS GROUP



Approach to Repetitive Losses



IDENTIFY



STRATEGIZE



MITIGATE

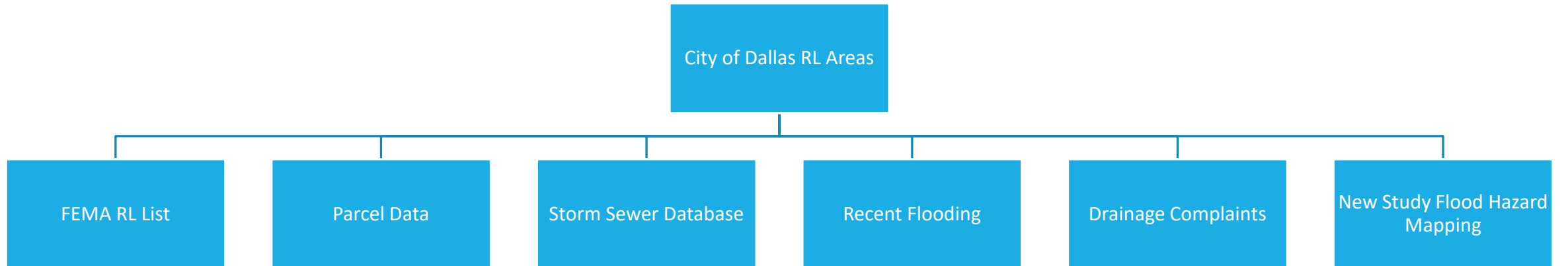
Repetitive Loss Area Identification

Review
FEMA
List

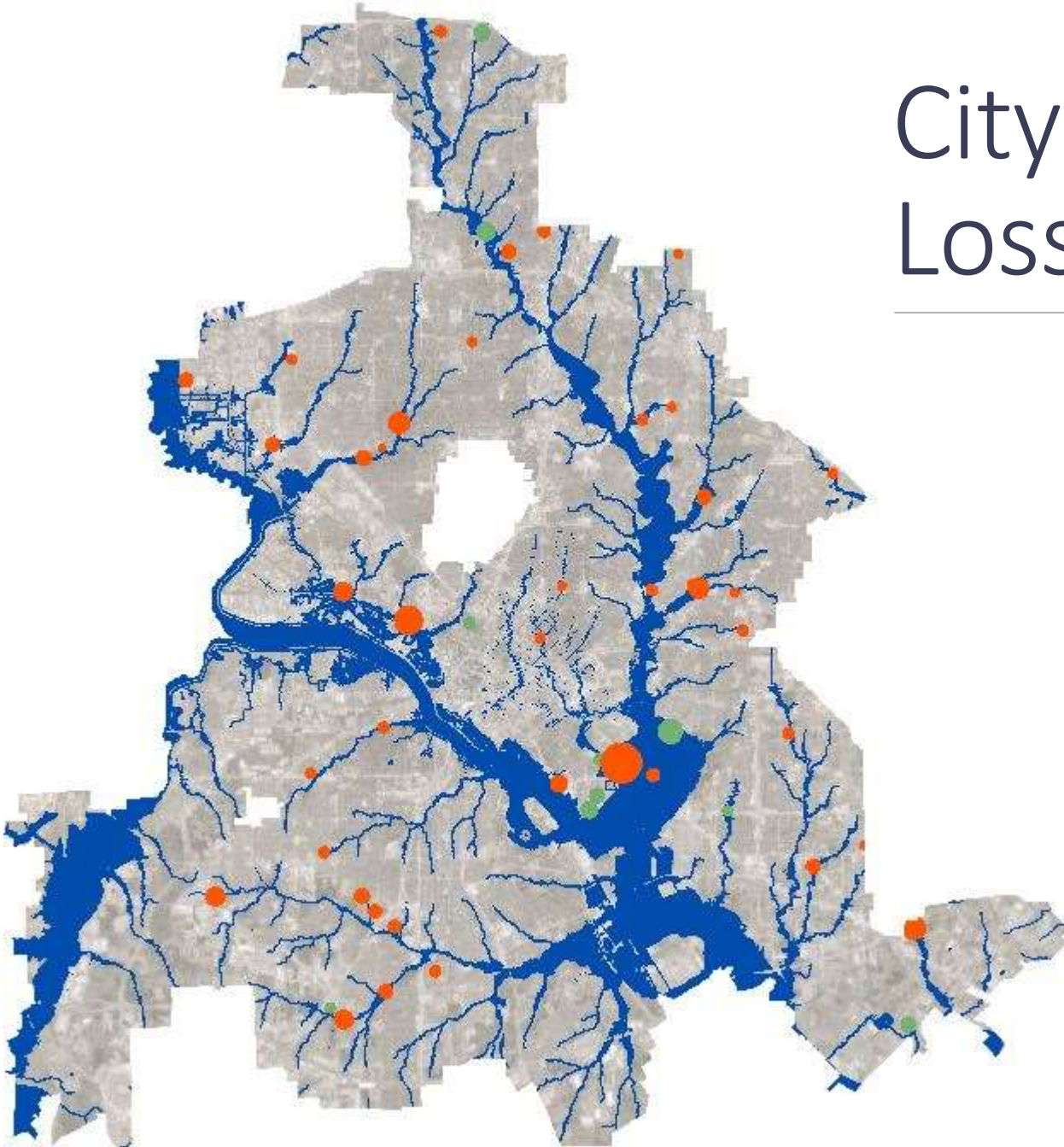
- New Properties
- AW-501 needs

Amend
City of
Dallas
RL
Areas

Repetitive Loss Area Identification



City of Dallas Repetitive Loss Areas



- 82 FEMA RL Properties
 - 24 Mitigated Properties
 - 59 Unmitigated Properties
- 52 City of Dallas RL Areas
 - 12 Mitigated Areas
 - 40 Unmitigated Areas

Repetitive Loss Area Strategy

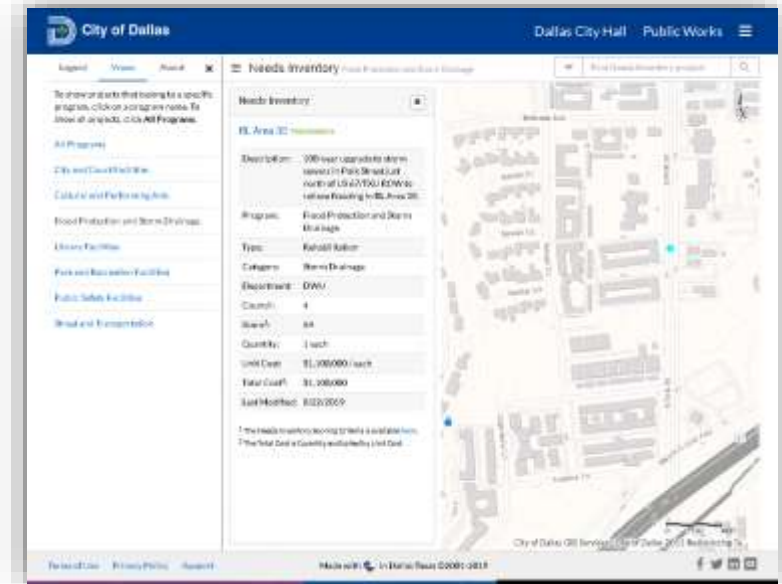
- Implement CRS “Category C” Community Prerequisites
 - Floodplain Management Plan [Step 5 (c)]
 - Amend Repetitive Loss Plan
 - Annual Outreach
- RL area studies for local drainage issues
- Needs Inventory
 - Flood protection projects
 - Voluntary buyouts



Repetitive Loss Area Mitigation

Local Drainage at Polk Street:

- Repetitive Loss Plan Area #38
- RL area storm drainage study
 - 1D/2D XPSWMM analysis
 - Flood relief alternative options
- Storm Drainage project on the Needs Inventory



Repetitive Loss Area Mitigation

Upper McKamy Branch:

- Repetitive Loss Plan Area #1
- Flood Protection project on the Needs Inventory
 - Voluntary Buyouts
 - Bypass Swale Construction



Questions?

Contact:

Kim Dewailly | (214) 948-4619

kimberly.dewailly@dallascityhall.com

Katherine Hawkins | (210) 704-1381

kHawkins@halff.com

Repetitive Loss Area Analysis Fort Worth

*Presented to: NCTCOG CRS Users
Group*

*Presented by: Clair Davis, P.E., CFM,
Floodplain Administrator*

May 4, 2020



**6/1/2019 - Morningside Neighborhood
5 homes flooded
10 yr event- 10% chance of occurring each year**

Fort Worth is a CRS Category C Community

- More than 10 Repetitive Loss Properties
- Floodplain Management Plan (2016)
- Repetitive Loss Area Analysis (2016)
 - 49 RLP's
 - 37 RLA's

CRS Manual Section 512.b Five-Step Process

- **Step 1: Notify property owners** – FNI prepared letters and surveys that were mailed to over 465 property owners within the RLAs (Appendix C).
- **Step 2: Coordination with other agencies** – FNI coordinated with 29 other communities and/or agencies, informing them of the analysis and asking for any pertinent information (Appendix D).
- **Step 3: Perform site visits and data collection** – FNI and City of Fort Worth Staff visited each RLA to collect data using the Limited Data View National Flood Mitigation Data Collection Tool. FNI also conducted a desktop analysis of potential flooding causes based on readily available information such as natural ground elevation information, the citywide areas of potential high water, FEMA floodplains, storm drain infrastructure, and other GIS information.
- **Step 4: Review potential mitigation measures** – FNI reviewed all active and completed studies and City projects pertinent to each RLA. FNI then considered potential alternative approaches for mitigation flooding in each RLA and determined a conceptual level action plan for each.
- **Step 5: Document the findings** – The analysis and findings for each RLA is documented in an individual report included in Appendix A. The main report documents the methodology and summarizes the results of the RLAA.

Rep Loss Flooding Source Summary Table

Flooding Causes	Description
Site Grading	Site is in a naturally low lying area such as in a bowl, below the roadway or poorly graded.
Lot to Lot Drainage	Flooding caused by sheet flow from adjacent neighborhood lots before reaching the roadway or other public right-of-way. In some cases, improper grading of the lot may contribute to or exacerbate flooding.
Sheet flow	Flooding caused by sheet flow from an adjacent larger tract of land such as a golf course or largely undeveloped property.
Inadequate storm drain infrastructure	Storm drain infrastructure is unable to handle heavy precipitation and results in flooding. Storm drain is not sized to accommodate 100-year storm. In many cases, this is the result of a natural creek that was filled in and replaced with an undersized storm drain line before the City had appropriate drainage criteria.
Drainage infrastructure stressed by upstream development	Upstream development has stressed drainage infrastructure beyond its capacity because it was not sized to accommodate 100 year, fully developed flows.
Riverine Flooding	Flooding caused by a creek or riverine source.
Lake Flooding	Flooding caused by lake level rises during storm events

Rep Loss Area Report – 1 of 2

Repetitive Loss Area (RLA): Forest Park-Berry (RLA 1)
Number of Properties in Area: 14
Number of Repetitive Loss Properties in Area: 6
Status: Pre-FIRM (5 of 6 RLPs)
Cause of Flooding: Inadequate storm drain infrastructure
Previous Mitigation: None
Possible Mitigation Measures: Acquisition, Hazard threat warning, Detention pond, Real estate disclosure/Outreach projects, Additional storm drain improvements
Preferred Mitigation Measure(s): Storm drain improvements
Party Responsible for Implementation: City

- 6 RLP's
- 5 Pre-FIRM
- All Zone X

Area Overview

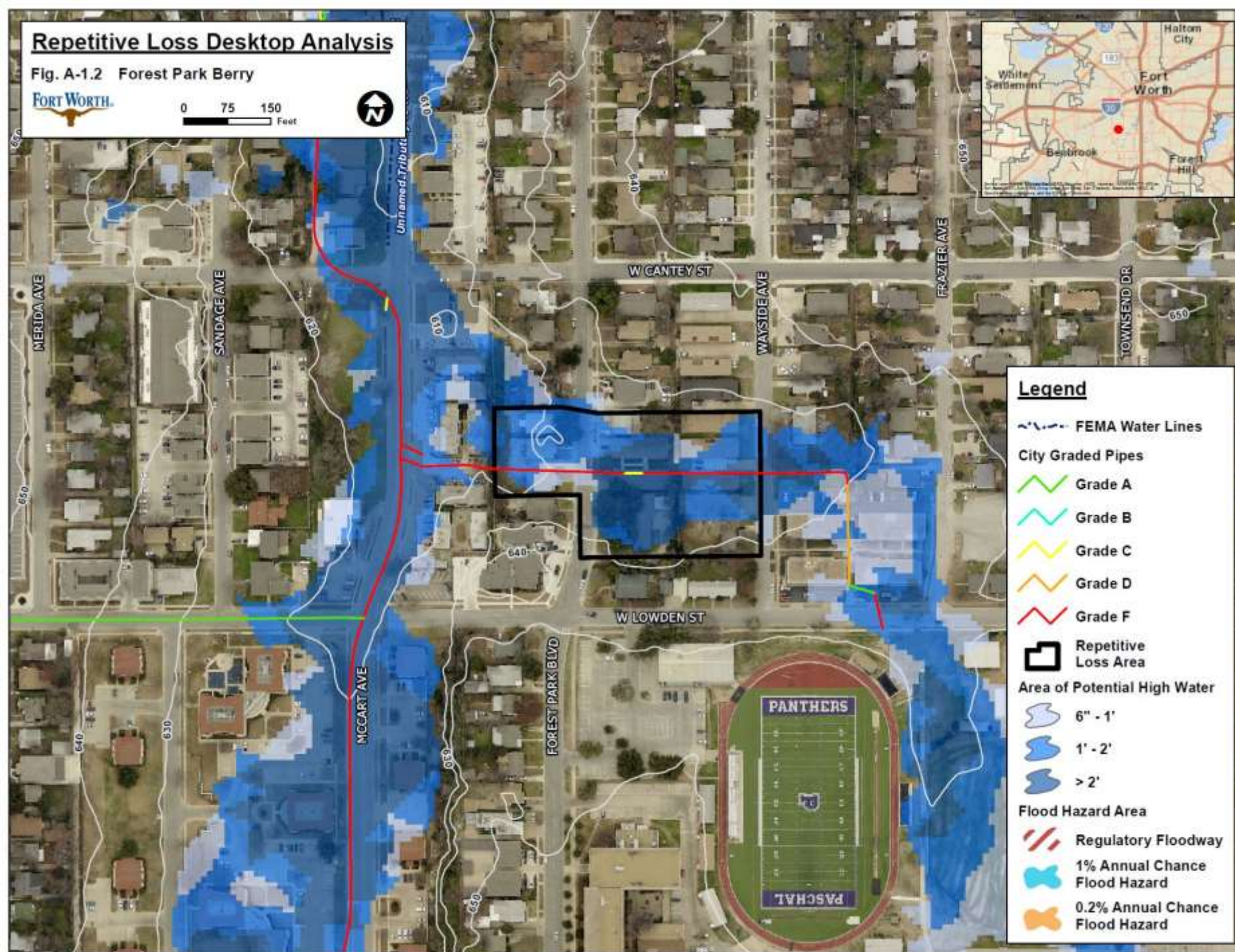
The Forest Park-Berry Area is in southwest Fort Worth. Figure A-1.1 shows the location of the area and Figure A-1.2 shows the results of the desktop analysis performed for this RLA. A site visit for this area was conducted on August 25, 2016. The properties in this area are mainly residential and the structures appear to be in fair to good condition with either slab-on-grade, pier posts, or elevated foundations. Several of the homes are in a naturally low-lying area or below the road. The addresses for each building in the RLA are listed in Appendix B. The site includes an area of minimal flood hazard (Zone X) per FIRM Panel 4838C0305K. The flooding source appears to be a natural creek that was filled in and replaced with an inadequate storm



Photo A-1 – Representative Property in RLA 1

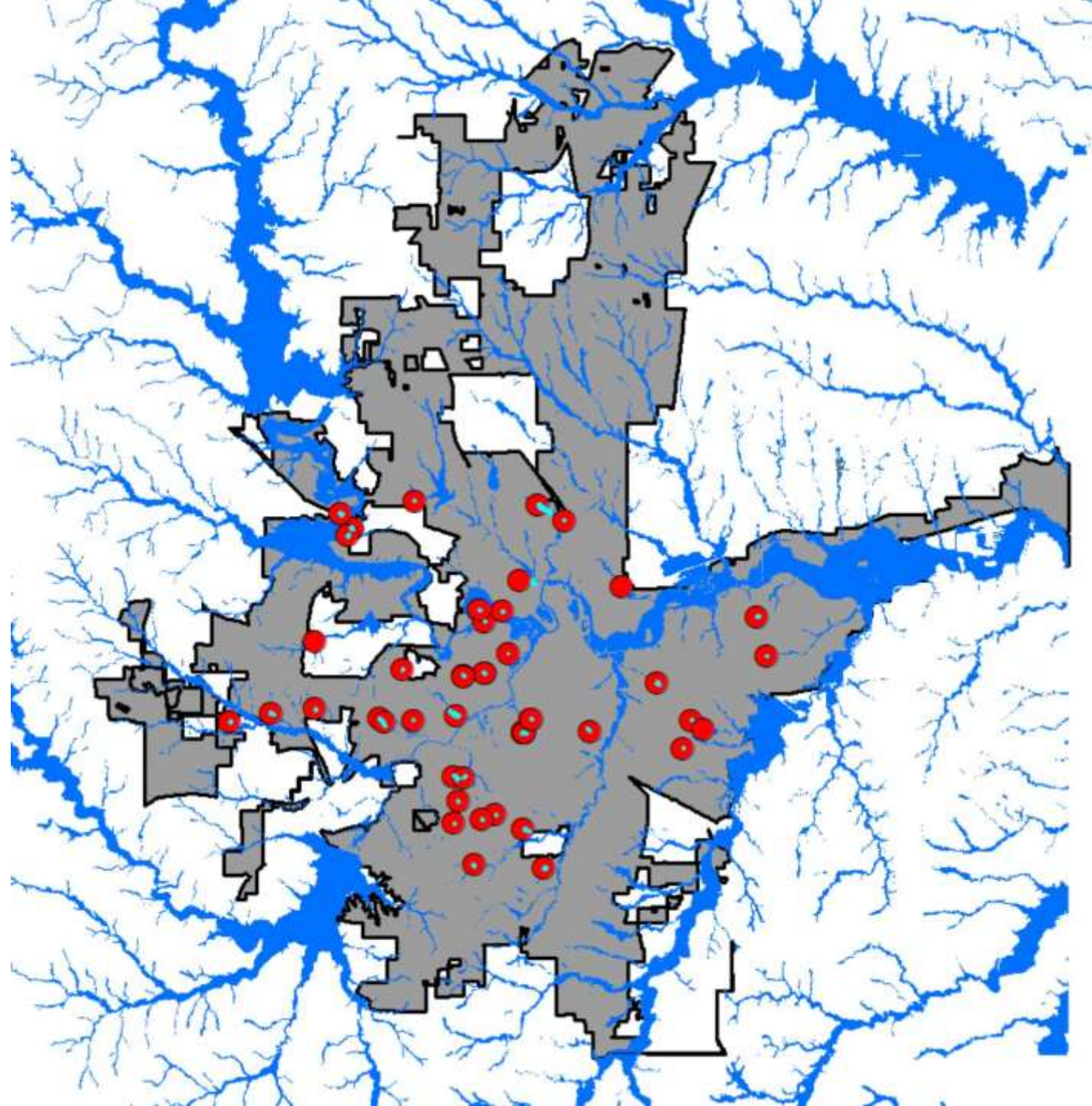
Rep Loss Area Report – 2 of 2

- 2D Model Confirmation
- Undersized Storm Drain
- > 2' Depths



Rep Loss Properties and Areas in Fort Worth

- 9 of 49 RLP's in SFHA
- 7 of 37 RLA's are riverine flooding
- Where's the Flood?

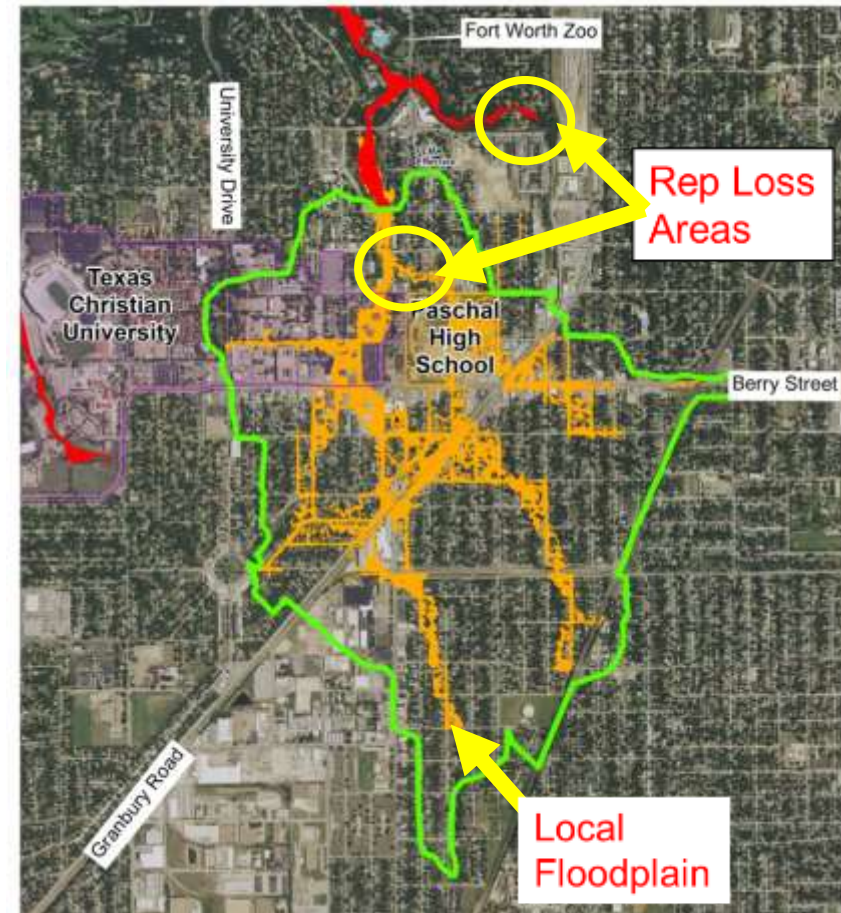


Non-FEMA Flood Risk Areas

What are Non-FEMA Flood Risk Areas?

- Areas shown as Zone X on FEMA Maps
- Areas with 40 of the 49 RLP's
- Areas with 64% of NFIP Claims in Ft. Worth

-  FEMA Floodplain
-  Local Floodplain



City Flood Risk Areas



4/23/2019 Linwood (~2-yr event)
50% chance every year



6/1/2019 Magnolia at 7th Street

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

CONSENSUS STUDY REPORT

FRAMING THE CHALLENGE OF URBAN FLOODING IN THE UNITED STATES

2019



Urban Flooding

MOVING TOWARDS RESILIENCE

2019

A Summary Report Based on the 6th Assembly of the
Gilbert F. White National Flood Policy Forum
Washington, D.C. 2019



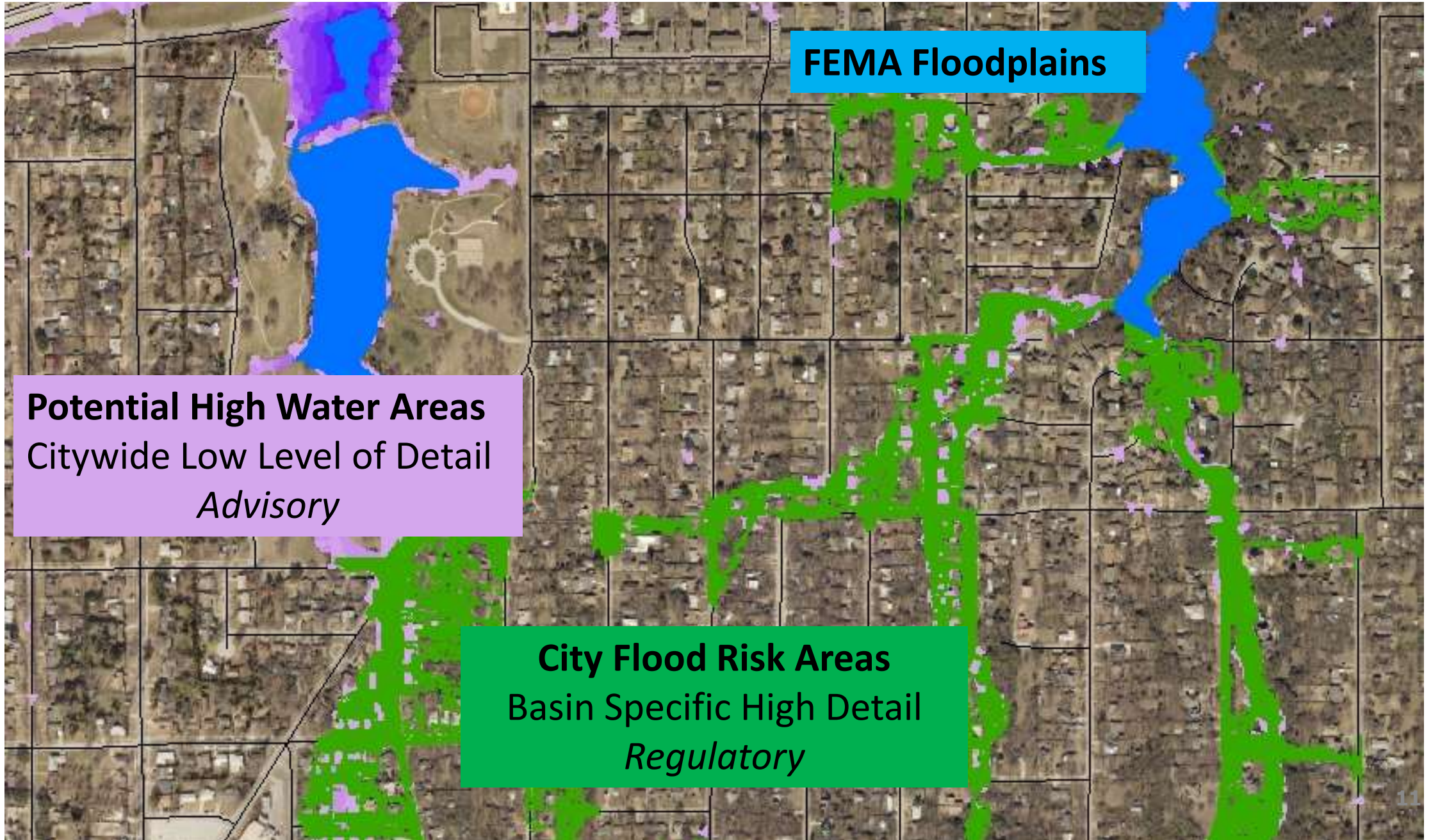
THE GROWING THREAT OF URBAN FLOODING: A NATIONAL CHALLENGE

2018

University of Maryland,
College Park
A. James Clark School of Engineering
Center for Disaster Resilience

Texas A&M University,
Galveston Campus
Center for Texas Beaches and Shores

Types of Flood Risk Mapping



Questions?

Clair Davis, P.E., CFM
817-392-5981
Clair.Davis@FortWorthTexas.gov

Break

10 Minutes

HARRIS COUNTY SUBSTANTIAL DAMAGE PROGRAM



**REGULATIONS OF HARRIS COUNTY, TEXAS
FOR FLOODPLAIN MANAGEMENT**



AS

**ADOPTED 5 JUNE 2007
EFFECTIVE 18 JUNE 2007
AMENDED 8 NOVEMBER 2011
AMENDED 5 DECEMBER 2017
EFFECTIVE 1 JANUARY 2018
AMENDED 9 JULY 2019
EFFECTIVE 9 JULY 2019**

**JOHN R. BLOUNT, P.E.
COUNTY ENGINEER**

**LOYD SMITH, P.E.
ASSISTANT COUNTY ENGINEER**

SECTION 1.03 - PURPOSE

The purpose of these Regulations is to provide land use controls necessary to qualify unincorporated areas of Harris County for flood insurance under requirements of the National Flood Insurance Act of 1968, as amended, to protect human life and health; to avoid increasing flood levels or flood hazards or creating new flood hazard areas; to minimize public and private losses due to flooding; to reduce the need for expenditures of public money for flood control projects; to reduce the need for rescue and relief efforts associated with flooding; to prevent or minimize damage to public facilities and utilities and to aid the public in determining if a property is in a potential flood area.

SECTION 2.47 – SUBSTANTIAL DAMAGE Substantial damage applies to a structure in a Special Flood Hazard Area (SFHA), or 1% annual chance floodplain, for damages of any origin sustained by the structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

5.01 – SUBSTANTIAL DAMAGE DETERMINATIONS A County Engineer's representative will use a FEMA- approved damage estimator and will do an on-site inspection if necessary to satisfy FEMA guidelines to make a preliminary determination as to whether the structure sustained Substantial Damage. For the purpose of determining the value of the structure before being repaired or reconstructed, the Harris County Appraisal District's market value for the structure will be used. If the applicant wishes to contest this value an independent certified appraisal may be submitted. Upon review and concurrence by the Harris County Appraisal District, this appraised value for the structure will be used for determining if the improvement is substantial.

In cases where the structure is covered by insurance and the property owner receives a flood insurance payment, the "Proof of Loss" statement shall be used by the County Engineer to value the cost to repair the structure. In cases where the structure is covered by insurance and the payment for damage to the structure (excluding contents) is over 95% of the value of the structure, the structure shall be deemed substantially damaged regardless of any other data submitted, except for the submittal of a certified appraisal showing that the structure is valued higher than the HCAD taxable value.

For the purpose of rebuilding after a flood event, any single family residence that received flood damage, but the finished floor is at or above the 1 percent or 100-year flood level, cannot be substantially damaged, if they meet the minimum federal elevation requirement for rebuilding. This does not apply to enlargements/expansions or any other work, except flood damage repairs.

SECTION 5.02 – NO REPAIRS TO A SUBSTANTIALLY DAMAGED STRUCTURE WITHOUT A PERMIT If a structure is determined to be Substantially Damaged and any repairs are made, it must be brought into compliance with the most recently amended Floodplain Management regulations. The property owner must obtain a Permit prior to commencement of Substantial Improvement under Section 2.45. SECTION

5.03 - REBUTTING THE SUBSTANTIAL DAMAGE FINDING In accordance with Section 5.02, a property owner may contest the County Engineer's finding of Substantial Damage by providing an estimate by an independent Texas licensed property and casualty adjuster showing lower cost to repair the structure to pre-damage condition or submitting a certified appraisal showing that the structure is valued higher than the HCAD taxable value.

**HARRIS COUNTY FLOOD DAMAGE INSPECTOR
CHECKLIST**

Building Address _____

Description of Construction

Slab on grade brick veneer/wood siding
 Pier and beam/block and base with wood siding.
 Other: _____

Slab on grade wood siding.
 Elevated pier with wood siding.

House Type: One Story Two Stry One and a half story

Garage Type: Attached Detached Carport None

Size of damaged area: _____ (1st floor)_sq. ft.

Roof type: Composition Wood Other: _____

Fireplace: Yes No

Number of Bedrooms: _____ **Number of Bathrooms:** _____

Central Heating/ Cooling: Air Window Units/ Space Heaters

Damaged Appliances:

Dishwasher Cook Top Range Oven Trash Compactor Microwave

Depth of Flooding: _____

Length of Submersion: Short (less than 8 hrs) Medium (8 to 24 hrs) Long (over 24 hrs)

Type of Damage: Submersion only Structural damage & submersion

_____ % Foundations	_____ % Hardware
_____ % Superstructure (Framing)	_____ % Cabinets/ Countertops (35% for refinishing lowers)
_____ % Roofing	_____ % Floor Covering List _____
_____ % Insulation and Weather-stripping	_____ % Plumbing (10% for reseating if necessary)
_____ % Exterior Finish	_____ % Electrical (20% for outlet repair/test)
_____ % Interior Finish (Drywall)	_____ % Built-in Appliances (D/W is 25%)
_____ % Doors, Windows, Shutters	_____ % HVAC (outside unit is 40%)
_____ % Lumber finish (trim)	_____ % Painting

Name of Inspector/Signature: _____ **Date & Time:** _____

Exterior Photo No. _____ **Interior Photo No.** _____

Applicant/contact name _____

Phone Number for contact _____

HARRIS COUNTY FLOOD DAMAGE INSPECTOR
MANUFACTURED HOME DETERMINATION SHEET

Building Address _____ SUBD NAME: _____

Description of Construction

Foundation Depth _____ for _____ (HRS/DAYS)

MH Dimensions _____ X _____ = _____ sq ft

Roof type: Composition Wood Other: _____

Foundation Type: Concrete Blocks Metal Jacks Wooden Piers

Subflooring: Plywood Particle Board Other: _____

Flooring: {Carpet {____} % Vinyl {____} % Other: _____ {____} %

Damaged Appliances:

Dishwasher Cook Top Range Oven Trash Compactor Microwave

Central Heating/ Cooling: Air Window Units/ Space Heaters

Garage Type: Attached Detached Carport None

Porch: (Y/N) _____ Sq. Ft: _____ Enclosed (Y/N) _____ Type Roof: _____

Type of Damage: Submersion Only Structural Damage & Submersion

_____% Foundations _____% Hardware

_____% Superstructure (Framing) _____% Cabinets/ Countertops (35% for refinishing lowers)

_____% Roofing _____% Floor Covering List _____

_____% Insulation and Weather-stripping _____% Plumbing (10% for reseating if necessary)

_____% Exterior Finish _____% Electrical (20% for outlet repair/test)

_____% Interior Finish (Drywall) _____% Built-in Appliances (D/W is 25%)

_____% Doors, Windows, Shutters _____% HVAC (outside unit is 40%)

_____% Lumber finish (trim) _____% Painting

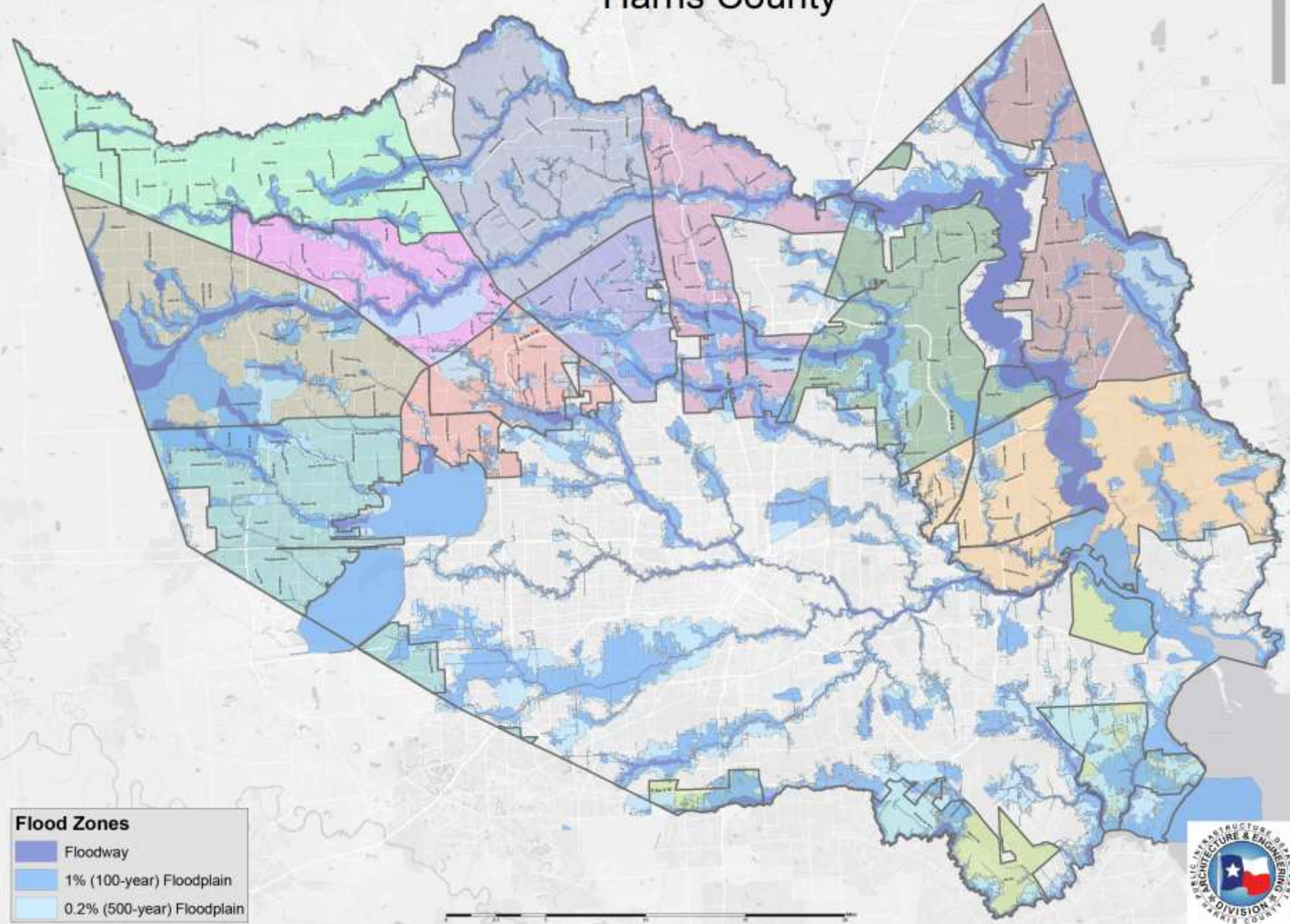
Name of Inspector/Signature: _____ Date & Time: _____

Exterior Photo No. _____ Interior Photo No. _____




Applicant/contact name _____

Phone Number for contacto. _____

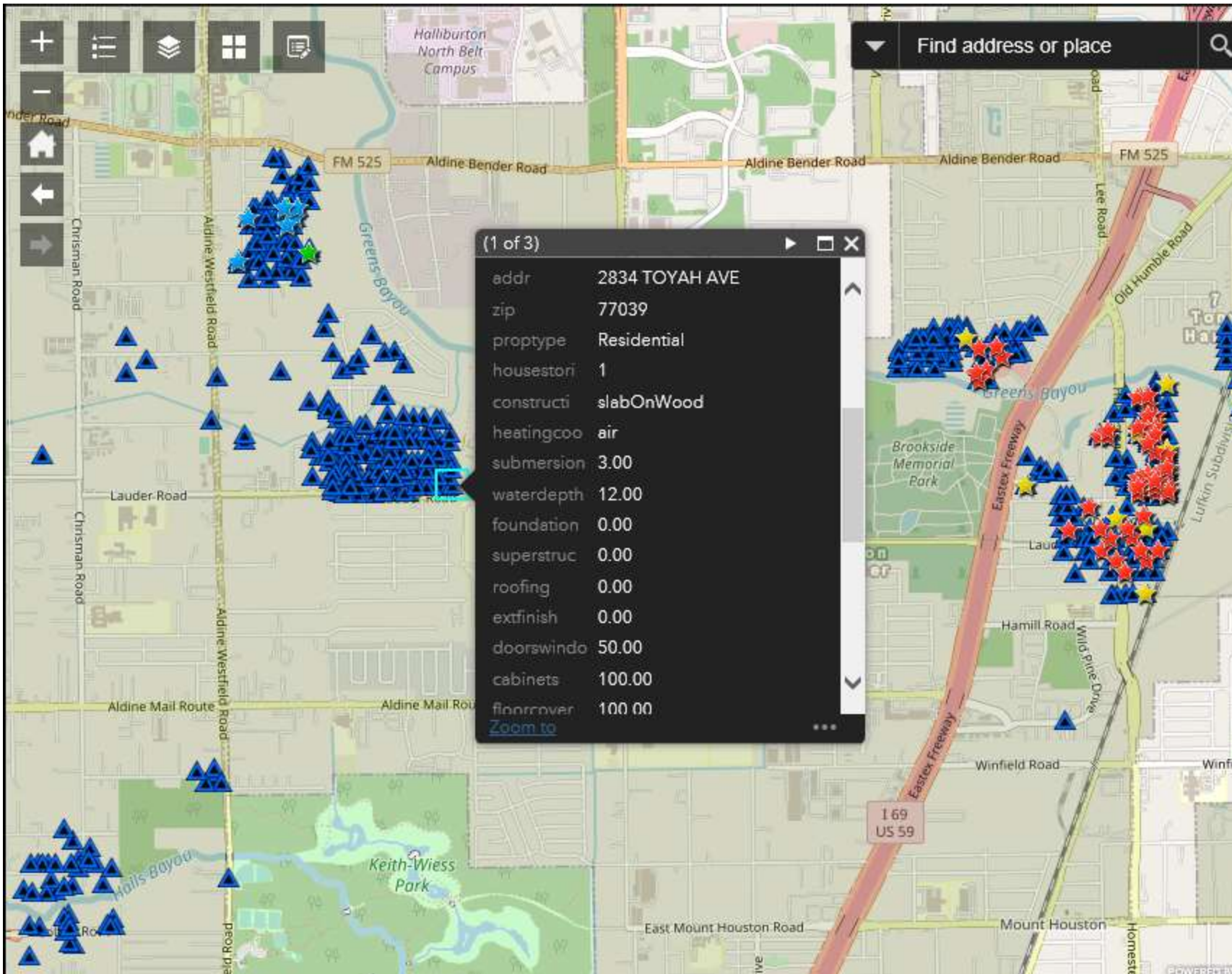
Harris County

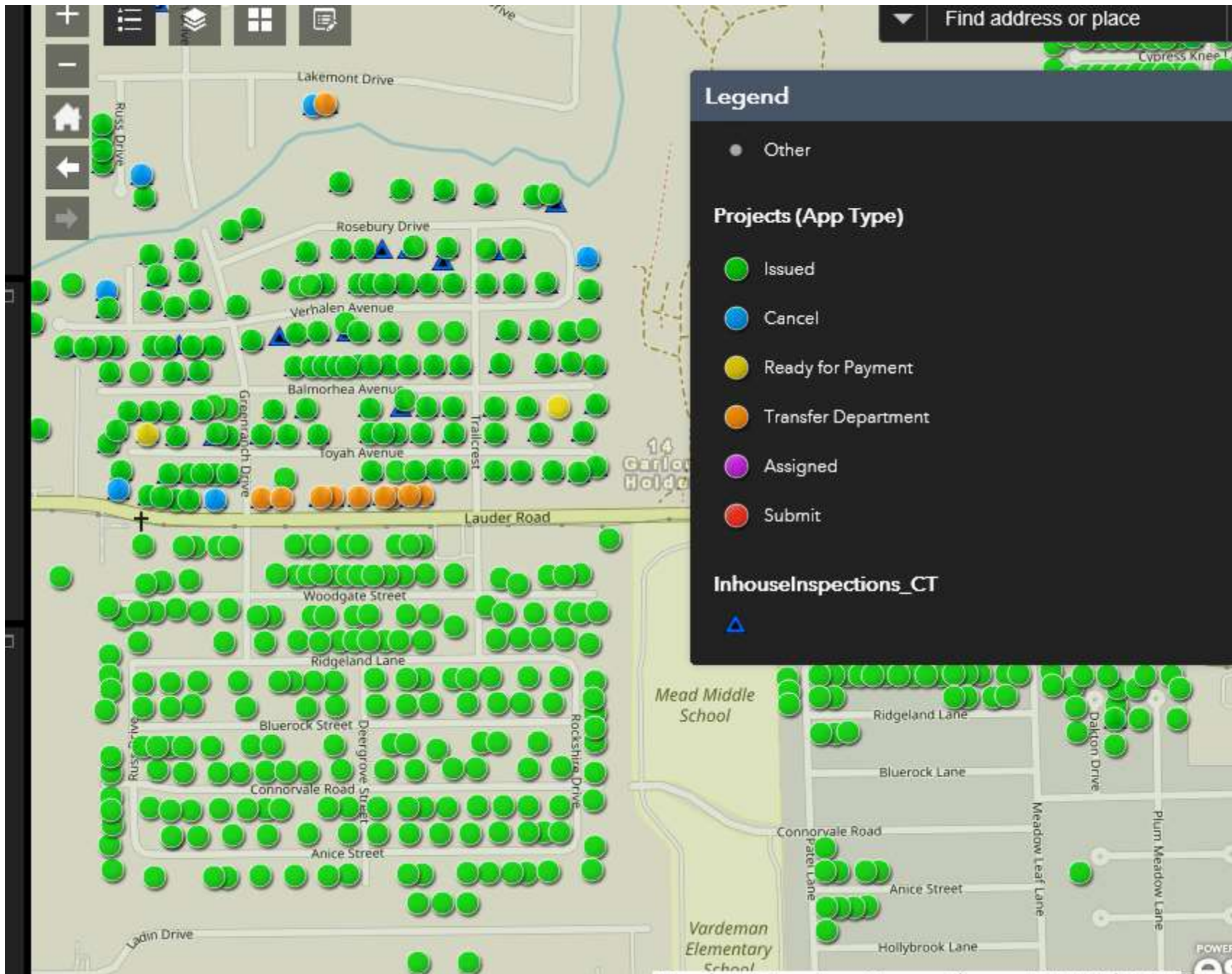


Flood Zones

-  Floodway
-  1% (100-year) Floodplain
-  0.2% (500-year) Floodplain







A screenshot of a GIS application interface. The background is a map showing street layouts and green spaces. A cluster of blue triangle markers is visible in the upper left. A black popup window is overlaid on the map, displaying the following information:

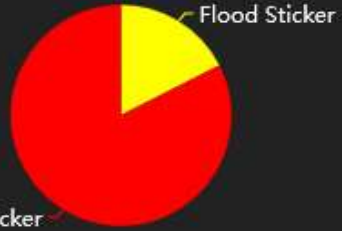
electrical	20.00
appliances	100.00
intfinish	75.00
hvac	40.00
assessor	ZoneF Team7
incident	RSDE_Harvey
eid	59bd702ad0235fd3a7ceb0d0
task	Zone F
photos	More info
Photos_1	More info
Photos_2	

At the bottom of the popup, there is a "Zoom to" button and a "169" label. The map background includes labels for "Aldine Mail Roa" and "Brookside Memorial Park".



SubDam VS Not Subdam

Remaining by Type



Insp Completed

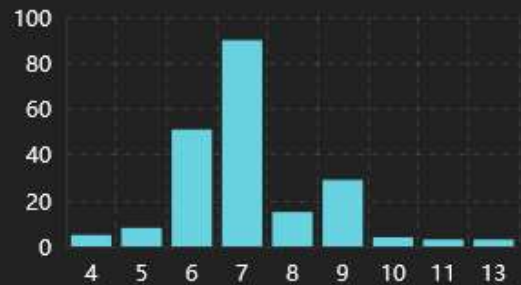
Sub Dam Insp

Inspected Status (No = Needs)



by Zone

Remaining Weekly Inspections by



Sub Dam Sticker

Project Number	1709143200
Status	Transfer
Department	Department
Full Address	4931 Bayou Blvd, Baytown 77521
Inspector Zone	9
SUBDAM	Sub Dam Sticker
SubDam Type	Sticker (Existing)
Inspected	No
Inspector Name	Ronald Sidney
FLOODED	Yes
FloodDepth	30.00
Stories	1
STRUCTURE	Existing

[Zoom to](#)

Map data © OpenStreetMap contributors, CC-BY-SA | HCED



Substantial Damage Estimator

SDE is a tool to help local officials administer the Substantial Damage requirements of their floodplain management ordinances in keeping with the minimum requirements of the NFIP.



SDE Substantial Damage Estimator 3.0 (Warning: database accessed by user)

Access Data



View/Search
All Records



Bulk Editor



Enter Default Data



Add New Property



Add New Residential
Assessment



Add New
Non-Residential
Assessment

Resources




User Manual



Web References


Reports, Imports/Exports, and GeoFiles



Saved Enterprise
Import Mappings



Import/Export
Functions



View Reports



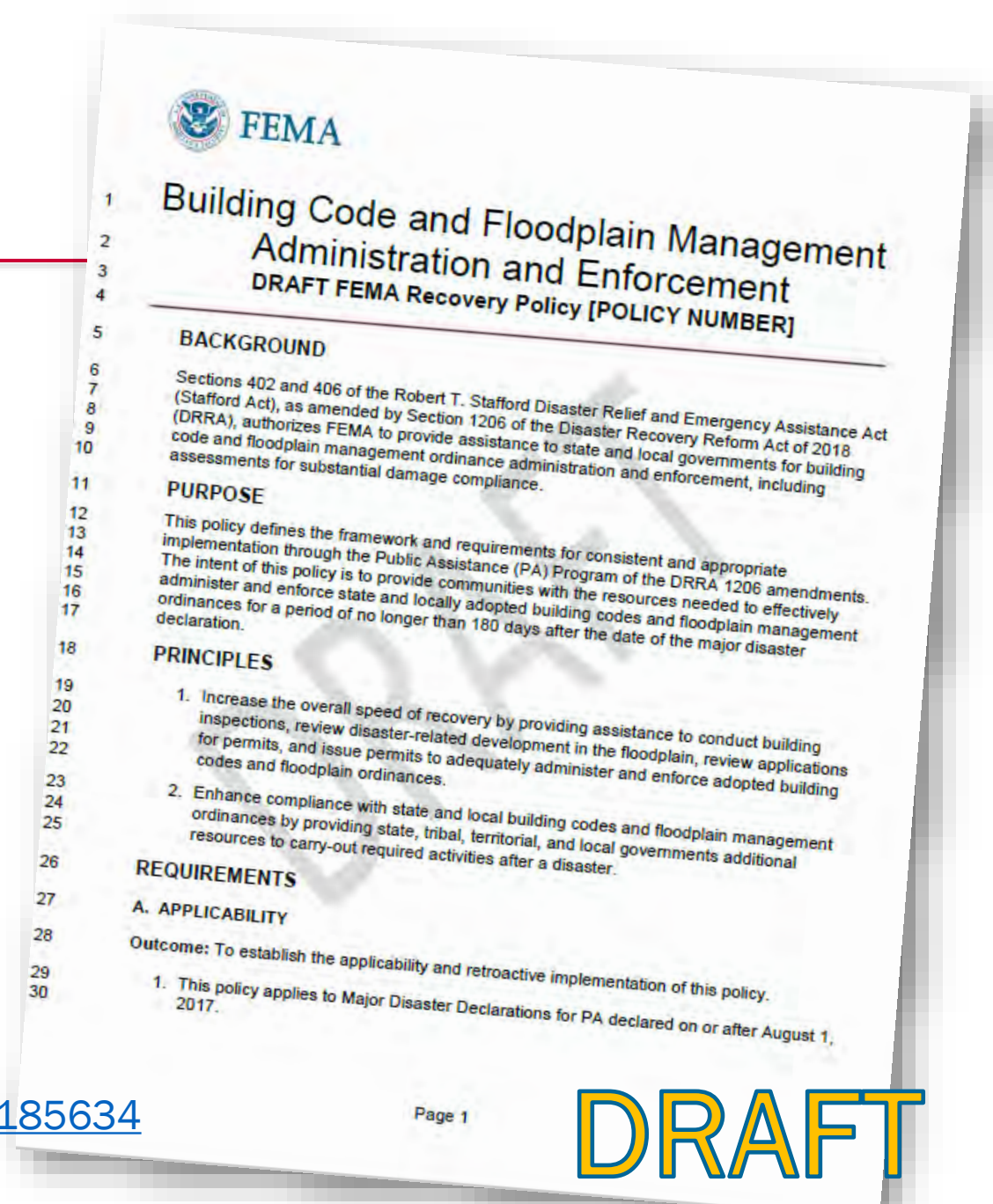
Generate GeoFile

DRRA Section 1206

October 5, 2018, Disaster Recovery Reform Act (DRRA) of 2018.

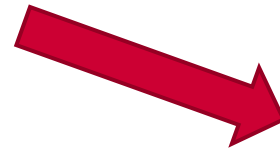
DRRA section 1206 amended sections 402 and 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act to authorize FEMA to provide assistance to state, territorial, tribal, and local governments for building code and floodplain management ordinance administration and enforcement, including assessments for substantial damage compliance.

<https://www.fema.gov/th/media-library/assets/documents/185634>



DRRA 1206 Code Administration And Enforcement Policy

- Comment period finished on draft policy
- Final policy expected soon after COVID19 delays
- Idea is, SD data collection by communities, not FEMA
- FEMA is implementing DRRA section 1206 through the Public Assistance (PA) Program



COVID-19 By the Numbers

56
Major Disaster Declarations

approved in all
50 states,
5 territories and
Washington DC



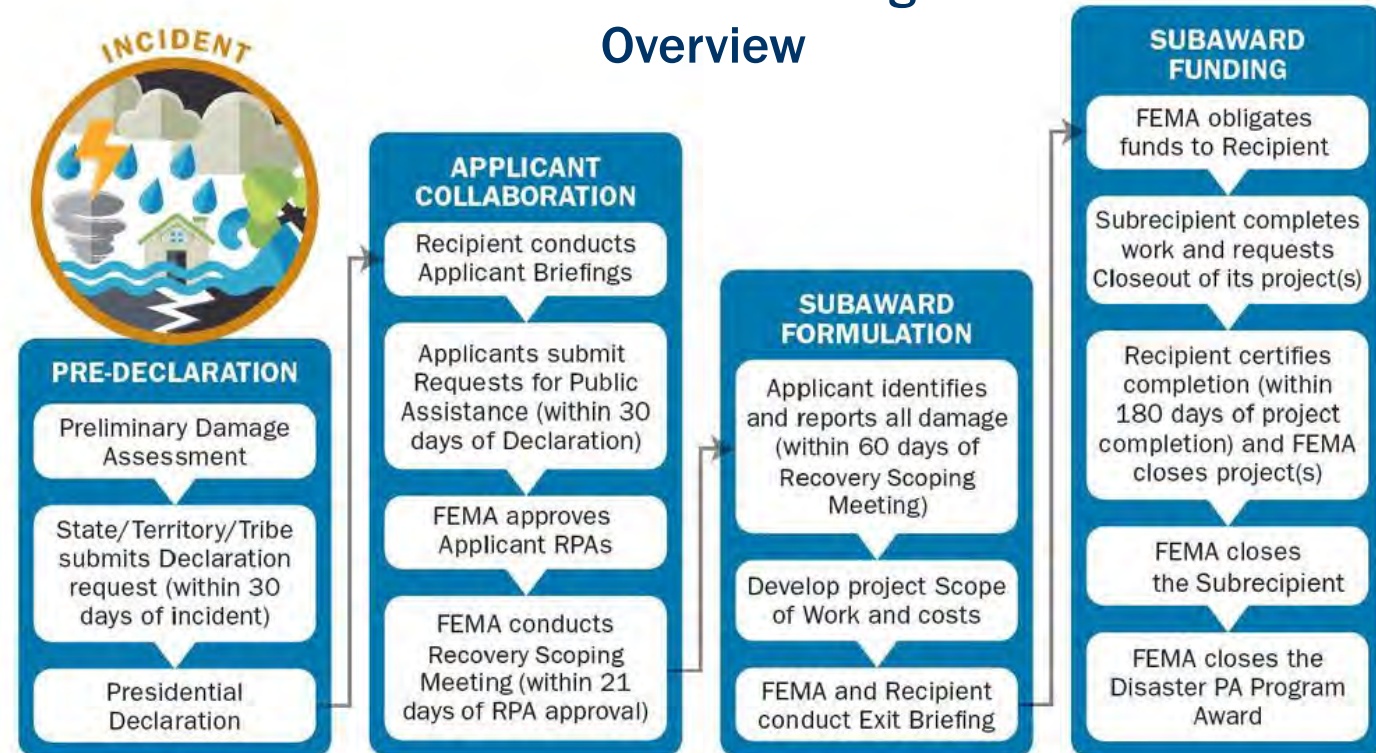
DRAFT Policy Points

- For major disasters declared after August 1, 2017
- 180 days
- Generally, FEMA PA Category G
- Floodplain management ordinance administration

- Hire, train, supervise
- Conduct assessments and field surveys
- Perform inspections
- Substantial damage determinations
- Inform property owners
- Contract for services
- Outreach to the public

DRAFT

Public Assistance Program Overview



DRAFT Policy: Data Collection Contracts

DRAFT

1. For substantial damage data collection work described in section C.1.d(i-vi) of this policy, FEMA's Substantial Damage Data Collection Contract may be available to support communities in cases where the State and local government lack the capability to perform or contract for eligible substantial damage data collection-related efforts due to the extreme catastrophic nature of an event or a demonstrated lack of resources.
2. Local governments that seek assistance through FEMA's Substantial Damage Data Collection Contract must submit a request in writing to the State, which will review and, if warranted, submit the request to the Regional Administrator which shall include:
 - a) A statement as to the reasons the State and local government cannot perform or contract for performance of the requested work;

DRAFT Policy: Timeline and Principles

ordinances for a period of no longer than 180 days after the date of the major disaster declaration.

PRINCIPLES

DRAFT

1. Increase the overall speed of recovery by providing assistance to conduct building inspections, review disaster-related development in the floodplain, review applications for permits, and issue permits to adequately administer and enforce adopted building codes and floodplain ordinances.
2. Enhance compliance with state and local building codes and floodplain management ordinances by providing state, tribal, territorial, and local governments additional resources to carry-out required activities after a disaster.

DRAFT Policy: Eligible Costs (partial info)

3. Reimbursement for work under this policy will be subject to Emergency Work Labor Eligibility as described in the Public Assistance Program and Policy Guide (PAPPG). Straight-time for budgeted employees is not eligible.
4. Other costs associated with extra hires or contracted support may be eligible for reimbursement. This includes costs for travel, accommodations, and per diem, as appropriate.
6. Costs associated with reimbursement for mutual aid or Emergency Management Assistance Compact (EMAC) will be reimbursed according to provisions established in the PAPPG.
7. Costs associated with legal proceedings related to code and floodplain management ordinance enforcement are eligible for reimbursement.

DRAFT



DRAFT Policy: Eligible Costs (partial info)

c) If work was performed by contract labor, the applicant will submit to FEMA all documentation demonstrating federal procurement rules in 2 CFR Part 200 were followed.

3. Costs will be funded at the permanent work cost-share applicable to the disaster.

DRAFT

FEMA Public Assistance Resources

FEMA Region 6 Public Assistance website: <https://www.fema.gov/R6-PA>

FEMA Public Assistance Program and Policy Guide (PAPPG) link: <https://www.fema.gov/media-library/assets/documents/111781>

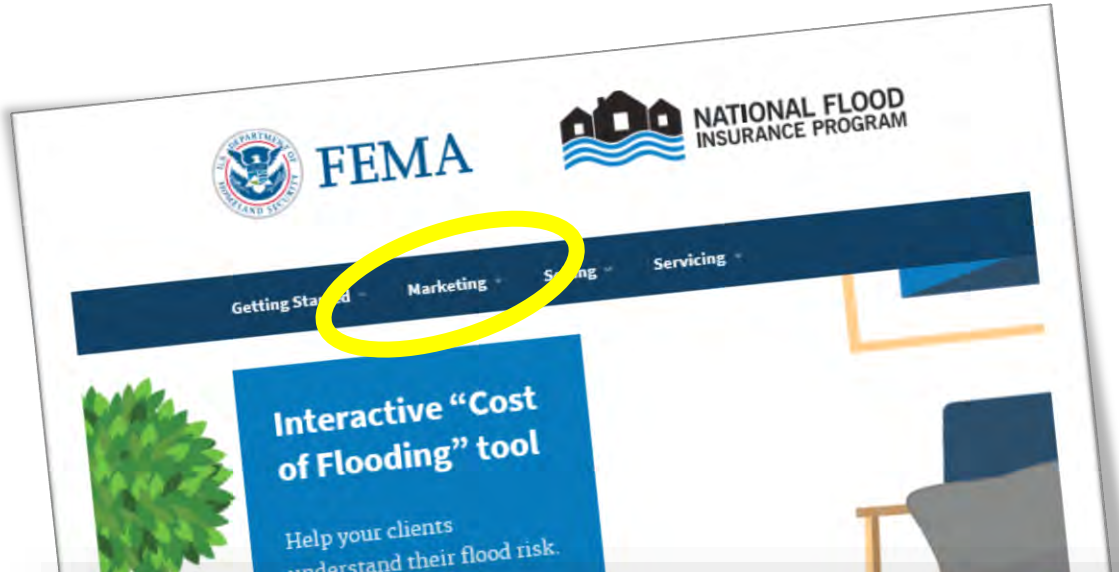
FEMA Independent Study courses on Public Assistance: [https://training.fema.gov/is/searchis.aspx?search=public assistance&all=true](https://training.fema.gov/is/searchis.aspx?search=public%20assistance&all=true)

Course Code	Course Title
IS-1000	Public Assistance Program and Eligibility
IS-1001	The Public Assistance Delivery Model Orientation
IS-1002	FEMA Grants Portal – Transparency at Every Step
IS-1005	Public Assistance Alternative Procedures
IS-1006	Documenting Disaster Damage and Developing Project Files
IS-1007	Detailed Damage Description and Dimensions
IS-1008	Scope of Work Development (Scoping and Costing)
IS-1009	Conditions of the Public Assistance Grant

FEMA Public Assistance: Contracting Requirements Checklist: https://www.fema.gov/media-library-data/1539875905022-5a495374f920a580e6bba7892879c888/PA_Contracting_Requirements_Checklist_508_Final_10-10-18.pdf



Social Media Posts & Free Printed Materials

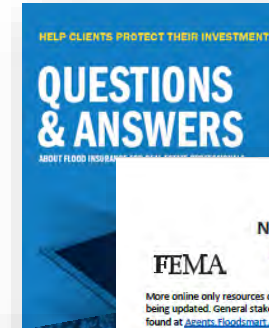


30 Days (Facebook)

That's the number of days it takes for #flood insurance to go into effect. Don't wait for the next storm, visit [insert link to your website] to purchase a policy and protect the life you've built. #FloodSmart

[Download](#)

www.agents.floodsmart.gov



FEMA Distribution Center
 NFIP Public Awareness Materials Order Form
 Phone: 800-480-2520 • Fax: 240-699-0525

FEMA

More online only resources can be found at the National Flood Insurance Program [publication page](#), these publications are constantly being updated. General stakeholder information can also be found at [FloodSmart.gov](#) and insurance Agent specific information can be found at [agents.floodsmart.gov](#).

NFIP PUBLICATION PAGE: <https://www.fema.gov/national-flood-insurance-program-publications>

CITY	INVENTORY NO.	TITLE	CITY	INVENTORY NO.	TITLE
For Agents					
Materials for agents to take on property site visits or to have on hand when meeting with clients. Designed to explain the value of flood insurance and answer program-related questions.					
Online Only	F-441 10/17	Insurance Agents Lowest Floor Guide Handbook https://www.fema.gov/media-library/assets/documents/16180	Online Only	N/A 11/18	Flood Insurance Agent Field Guide Handbook https://www.fema.gov/media-library/assets/documents/11213
	F-438 10/17	The Preferred Risk Policy for Homeowners and Renters Brochure https://www.fema.gov/media-library/assets/documents/17676		F-2053 7/19	Agent Resources Postcard Postcard https://www.fema.gov/media-library/assets/documents/162092
	F-679 8/19	NFIP Summary of Coverage Handbook https://www.fema.gov/media-library/assets/documents/11179		F-2076 11/19	NFIP Door Hanger Door Hanger https://www.fema.gov/media-library/assets/documents/164903
	F-687 10/17	NFIP Flood Insurance Claims Handbook https://www.fema.gov/media-library/assets/documents/16650	Online Only	N/A 11/19	Agent Map Update Fact sheets Fact sheet From High-Risk to Low-to Moderate-Risk https://www.fema.gov/media-library/assets/documents/164801 From Low-to Moderate-Risk to High-Risk https://www.fema.gov/media-library/assets/documents/164799
	F-064 3/11	Answers to Questions About the NFIP Handbook https://www.fema.gov/media-library/assets/documents/272 <i>Note: in-depth document, not appropriate for introducing survivors or agents to the program, shipped in limited quantities.</i>			From High-Risk to Higher-Risk https://www.fema.gov/media-library/assets/documents/164803
Online Only	N/A 4/18	Flood Insurance Manual Manual https://www.fema.gov/media-library/assets/documents/167601			
	F-698 5/19	Flood Insurance: Make It Your Business Fact sheet https://www.fema.gov/media-library/assets/documents/23966			

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www.fema.gov/media-library/assets/documents/250

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