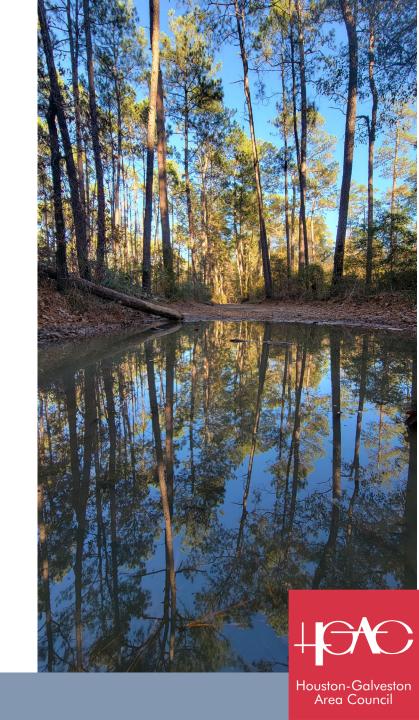
# Regional Flood Management Committee

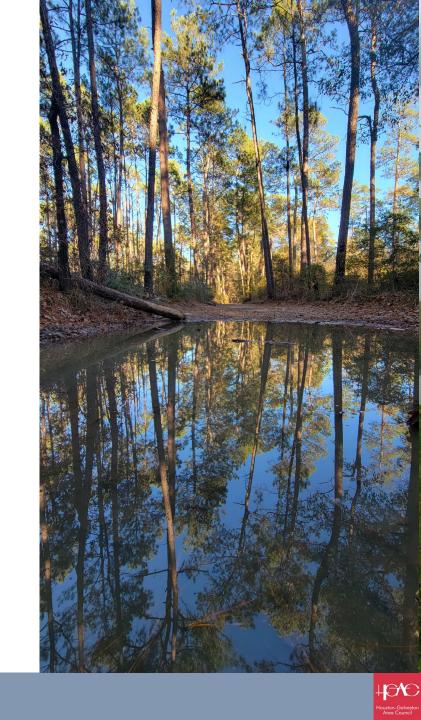
Quarterly Meeting, 4/17/24 In-person at H-GAC, 2<sup>nd</sup> Floor Conference Rooms B & C



1:30 PM	Welcome
	Roll Call
	Public Comment (3 minutes per speaker)
1:45 PM	Sponsor Spotlight: GrantWorks Steve Mataro, Senior Vice President of Community Relations James Young, Associate Vice President of State & Local Government Services
1:50 PM	Speaker Presentation: High Flood-Risk Properties in Texas: Sharing What FEMA Knows  Dana Snyder, Emergency Management Specialist Federal Emergency Management Agency (FEMA), Region 6 Texas Integration & Recovery Office
	Speaker Presentation: Riverine Targeted Use of Buyouts (TUBs) Program Deborah January-Bevers, JD, President & CEO Houston Wilderness
	Speaker Presentation: Central Region GLO River Basin Flood Study, MATCH Tool Will Parker, Mitigation Outreach Specialist H2O Partners Inc.
	Bylaws Discussion, cont.
	Next Meeting Reminder
	Other Announcements or Business
3:30 PM	Adjourn

Thank you to our sponsor for providing refreshments for this meeting:





### Roll Call Primary and Alternate Board Members

Please unmute your microphone and voice that you are present at the meeting when you hear your name called

> Tap on the base of the microphone to turn on The microphone light will turn green



### Public Comment 3 Minutes Per Speaker

We will inform you when your 3 minutes are over



### Sponsor Spotlight

# GrantWorks. PEOPLE FIRST, PURPOSE-DRIVEN, HEART LED.

Steve Mataro, Senior Vice President of Community Relations

James Young, Associate Vice President of State & Local Government Services



### Speaker Presentation:

### High Flood-Risk Properties in Texas: Sharing What FEMA Knows

Dana Snyder, Emergency Management Specialist Federal Emergency Management Agency (FEMA), Region 6 Texas Integration & Recovery Office







#### NFIP flood insurance claim data

Repetitive Loss (RL): Two or more \$1,000 claim payments in a 10-year window

Severe Repetitive Loss (SRL): 4 or more \$5,000 claim payments; or 2 or more paid losses cumulatively exceeding structure's value

Definitions vary between FEMA programs.

SRLPs in THE UNITED STATES have an average of **5.1** NFIP claims, but the actual number of floods may be higher.

SRLPs account for **0.8%** of all NFIP policies in THE UNITED STATES but **12.8%** of the claim payments

Losing Ground: Flood
Data Visualization Tool
(nrdc.org)

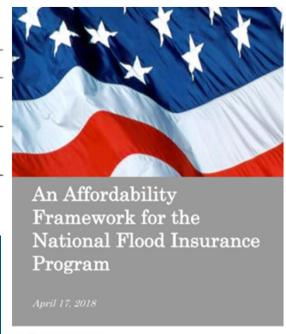
#### What about non-policyholders?

Table 2.3. Median Household Income of Policyholders and Nonpolicyholders (number of households in parentheses)

	In SFHA	Outside SFHA	Total	
Definite Ideas	\$77,000	\$88,000	\$82,000	
Policyholders	(1.8 M)	(1.9 M)	(3.7 M)	
	\$40,000	\$56,000	\$55,000	
Non-policyholders	(3.3 M)	(101.1 M)	(104.4 M)	
All I I accept ald a	\$50,000	\$57,000	\$56,000	
All Households	(5.1 M)	(103.0 M)	(108.1 M)	

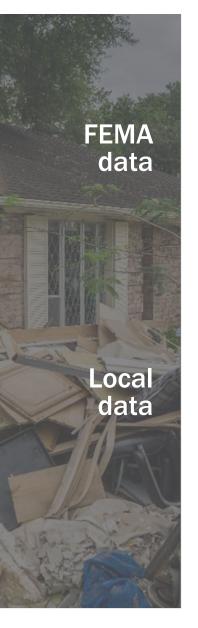
People inside the SFHA make less and can afford less.

There needs to be a coordinated funding mechanism from Local/State/Fed/other sources.









#### **FEMA High Flood-Risk Properties (HFRPs)**



#### **NFIP Flood Insurance Claims:**

Two or more NFIP flood losses, already being shared with communities





FEMA Individual Assistance (IA) Inspections:

Two or more inspections for flood losses, rarely shared with communities in the past, and captures a majority of survivors who do not have flood insurance

#### **Substantially Damaged:**

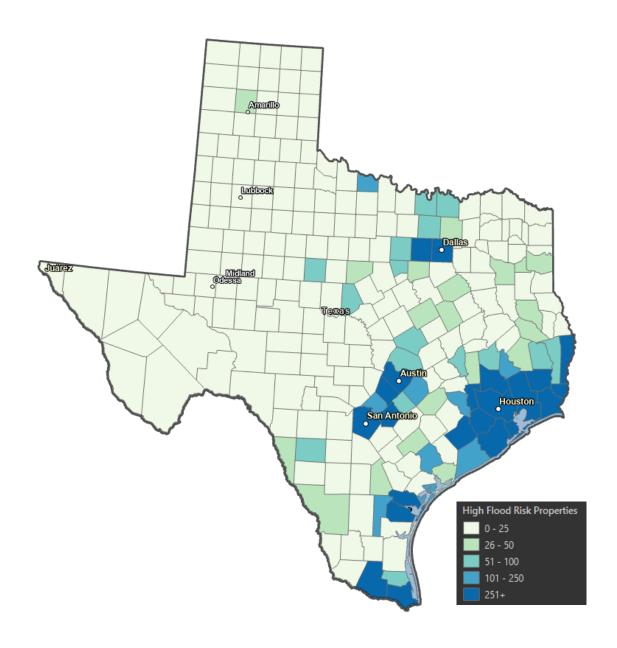
Most damaged, most at risk structures, lowest floors below base flood elevation

# **High Flood-Risk Properties in Texas**

Repetitive Loss Type	Count
IA Rep Loss (2 losses)	43,673
IA Severe Rep Loss (4 or more losses)	1,310
NFIP-FMA Rep Loss (2 losses)	28,190
NFIP-FMA Severe Rep Loss (4 or more losses)	7,428
Total	80,601

Table and map do not show SD or potentially SD structures.



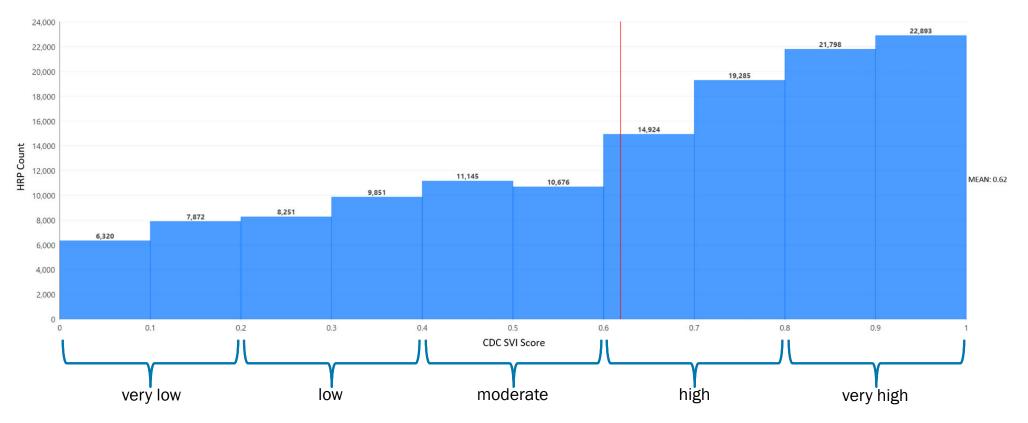


#### Top 20 communities in Texas with High Flood-Risk Properties

Community	IA RL	IA SRL	NFIP RL	NFIP SRL	Total HFRPs	IA RL/SRL % of HFRPs
HOUSTON, CITY OF	16,645	697	8,042	2,401	27,785	62%
HARRIS COUNTY*	8,504	256	4,082	1,215	14,057	62%
MONTGOMERY COUNTY*	1,356	120	1,009	445	2,930	50%
BEAUMONT, CITY OF	1,392	46	384	122	1,944	74%
ORANGE COUNTY *	1,107	7	485	181	1,780	63%
JEFFERSON COUNTY *	833	0	479	143	1,455	57%
PASADENA, CITY OF	919	2	380	72	1,373	67%
BRAZORIA COUNTY *	482	2	711	147	1,342	36%
BRIDGE CITY, CITY OF	552	0	388	100	1,040	53%
PORT ARTHUR, CITY OF	490	7	414	65	976	51%
VIDOR, CITY OF	563	11	188	124	886	65%
GALVESTON, CITY OF	260	0	524	98	882	29%
ORANGE, CITY OF	504	15	184	27	730	71%
HIDALGO COUNTY *	585	38	96	5	724	86%
GALVESTON COUNTY*	202	1	390	99	692	29%
LIBERTY COUNTY*	460	13	133	41	647	73%
PEARLAND, CITY OF	191	0	296	110	597	32%
DICKINSON, CITY OF	174	0	310	93	577	30%
FORT BEND COUNTY *	301	2	238	23	564	54%
LA PORTE, CITY OF	213	0	281	50	544	39%



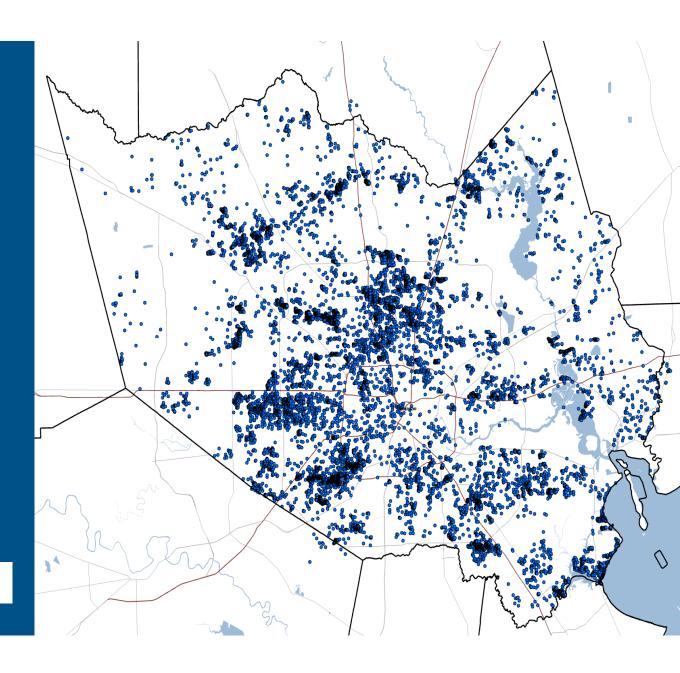
#### High Flood-Risk Properties have high social vulnerability





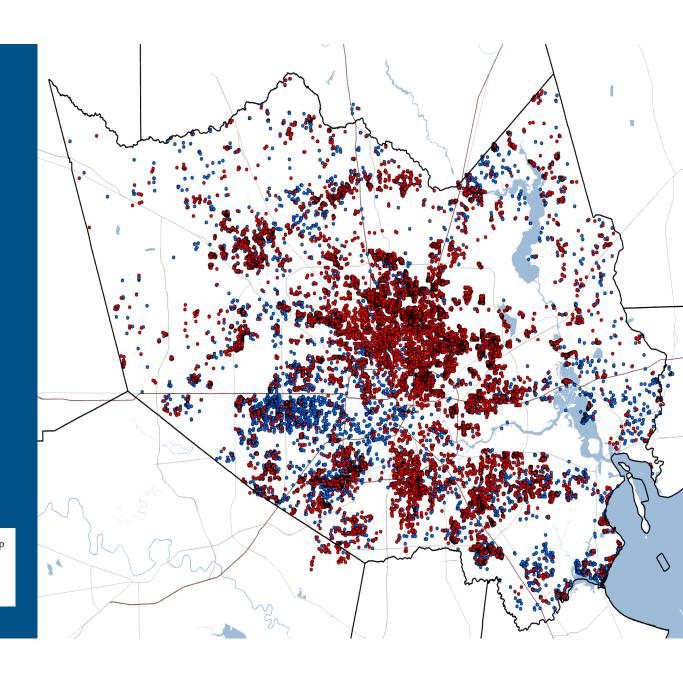
### Houston

NFIP/FMA Rep Loss &
 Severe Rep Loss



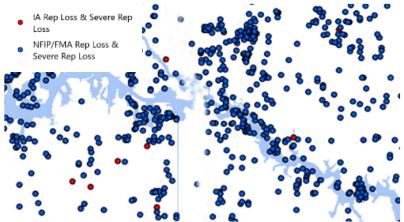
### Houston

- IA Rep Loss & Severe Rep Loss
- NFIP/FMA Rep Loss &
  Severe Rep Loss



## Higher income households can better afford NFIP policy premiums. Their repetitive losses are more easily identified and addressed.





Neighborhood with many NFIP policies

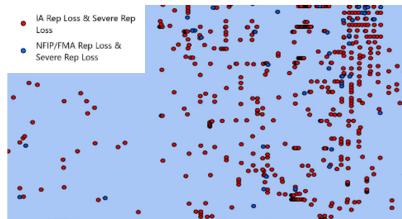
\$50,000 average NFIP claim payment



Locations are randomized to protect personally identifiable information.

# Lower income households may be unable to afford an NFIP policy, going untracked and unmitigated while also suffering repetitive losses.





Neighborhood with few NFIP policies

\$6,000 Average FEMA IA Payment

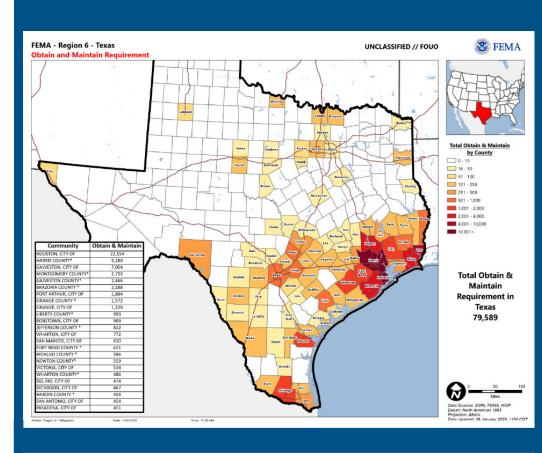


Locations are randomized to protect personally identifiable information.

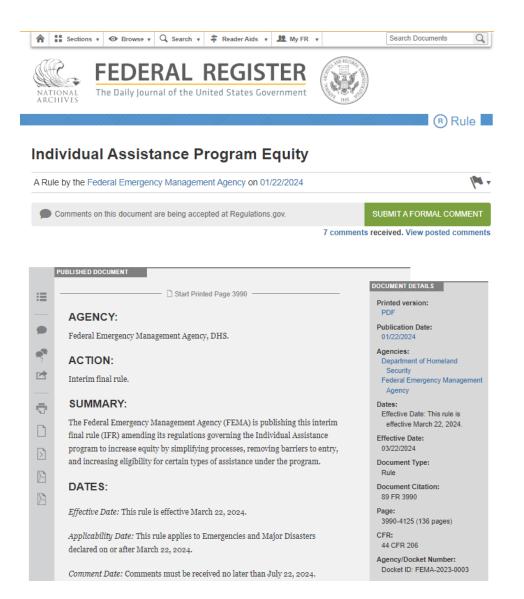
## Obtain and Maintain (O&M) flood insurance requirement

- Applies to households in the Special Flood Hazard Area (SFHA) that receive federal disaster assistance for flood-damage repair or replacement of home or personal property.
  - Homeowners must purchase and maintain coverage on the property for as long as it exists. Requirement stays with the property. Must disclose to next buyer/owner.
  - Renters must maintain coverage for as long as they live at the rental property. Requirement ends if they move from that property. 40%-60% of FEMA applicants are renters.
- Not complying can make you ineligible for certain types of future disaster assistance in a flood event. Noncompliant survivors may still be eligible for things like medical, dental and temporary housing assistance.





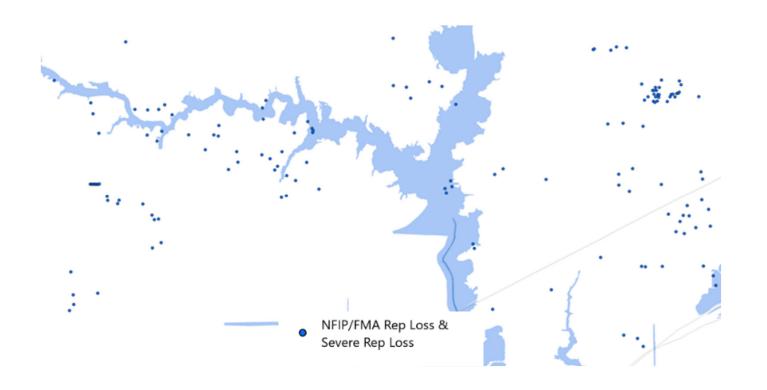
Not Approved - Noncompliant with Flood Insurance Requirement (NCOMP - HR)
Your application cannot be approved for Home Repair or Replacement Assistance because you didn't maintain a flood insurance policy.



#### Good news: Three-year, postdisaster NFIP policies expected to increase

- In addition to other changes to FEMA disaster assistance, more survivors may be eligible for a three-year Group Flood Insurance Policy (GFIP).
- GFIP coverage is \$85,000 for fiscal year 2024.
- Homeowners need to purchase their own policy at expiration.
- Read about the changes to FEMA's disaster assistance, and make public comments until July 22, 2024, <a href="here">here</a>.

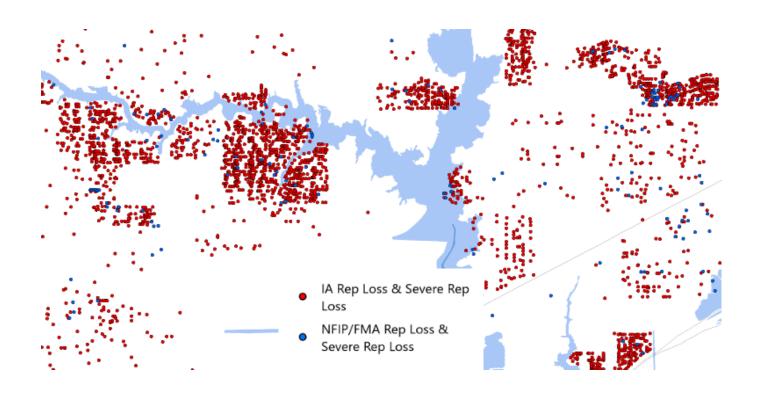
#### **Area in Texas showing NFIP repeat losses**



All of these blue dots represent NFIP RL and SRL.



#### Same area in Texas, with repeat IA flood losses added in



Hotspots emerge as we add in the red dots representing IA RL and SRL.

Statewide, about 50% of HFRPs are outside the Special Flood Hazard Area. What does this mean for mapping and regulations?



#### How to request your data

- Email requests to johne.bowman@fema.dhs.gov.
- An Information Sharing Access Agreement (ISAA) must be signed by the requesting agency and FEMA.
- Data may include:
  - NFIP policies, claims, and averages
  - NFIP repetitive loss and severe repetitive loss
  - Obtain & Maintain flood insurance requirement properties
  - Group Flood Insurance Policies (GFIPs)
  - High Flood Risk Properties (IA RL and SRL)

Agreement No./Title:

DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency

INFORMATION SHARING ACCESS AGREEMENT (ISAA)

BETWEEN

THE DEPARTMENT OF HOMELAND SECURITY/FEDERAL EMERGENCY MANAGEMENT
AGENCY (DHS/FEMA)

AND

**Liberty County** 

3rd party ISAAs may or may not be approved. Aggregate data may be able to be shared if address-level data cannot.

# Possibilities

- Identify flood risk hotspots
- Fund local mitigation and drainage projects/studies
- Add to local hazard mitigation plan
- Regulate repeatedly flooded areas (including Zone X)



- Include HFRP areas in mitigation grant apps
- Outreach to property-owners like the annual CRS/NFIP repetitive loss notification; sharing aggregate data with your residents
- Educate residents about the obtain and maintain flood insurance requirement

Dana Snyder
Emergency Management Specialist
Floodplain Management & Insurance Branch
FEMA Region 6 Mitigation
dana.snyder@fema.dhs.gov

John Bowman
Emergency Management Specialist
Floodplain Management & Insurance Branch
FEMA Region 6 Mitigation
Johne.Bowman@fema.dhs.gov

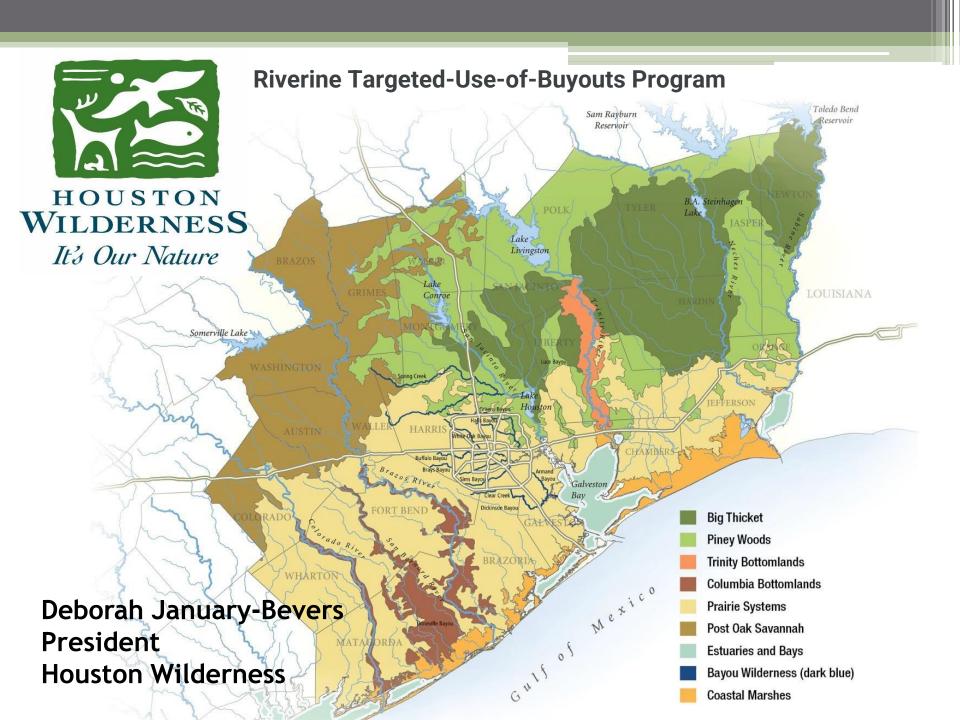


### Speaker Presentation:

# Riverine Targeted Use of Buyouts (TUBs) Program

Deborah January-Bevers, JD, President & CEO Houston Wilderness





# Riverine Targeted-Use-of-Buyouts (TUBs) Program Large-scale Native Tree Plantings and native grass bioswale installations



# Land & Water enhancements for qualified buyout properties along riparian corridors



- Work toward reducing

   "patchwork" of fragmented
   buyout green spaces
- Remove financial burden on counties to maintain buyout green spaces
- Prioritize contiguous buyout properties to enhance ecosystem services

# Data and GSI methods under Riverine TUBs

- Large-scale tree planting of native Super Trees
- Creation of native grass bioswales – establish BMPs for widespread use
- Native grass
   enhancements in
   delineated wetland areas

#### Riverine Targeted Use of Buyouts (RTUBs) Sites in Harris County, TX





FEMA Floodplains

Parks

Flood Control Right of Way

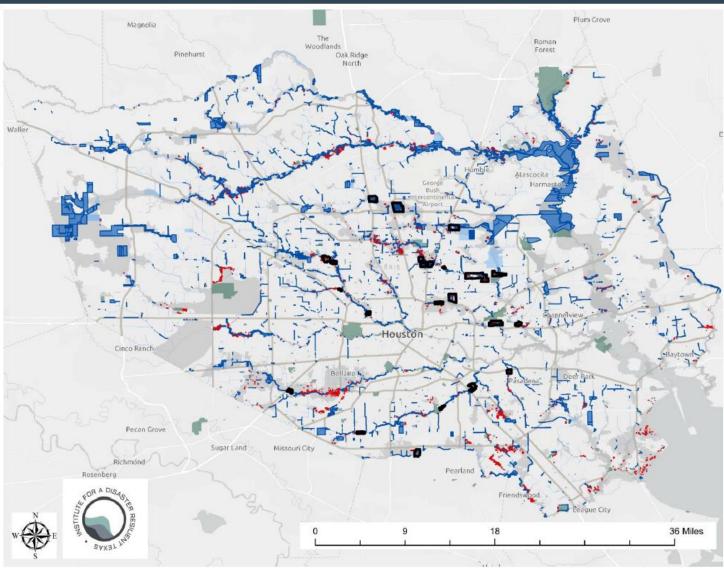
Existing Buyouts/HCFCD Properties

**Candidate Buyouts** 

Potential RTUBs Area

Major Highways





#### TEXAS A&M UNIVERSITY GALVESTON CAMPUS.

ata Sources:

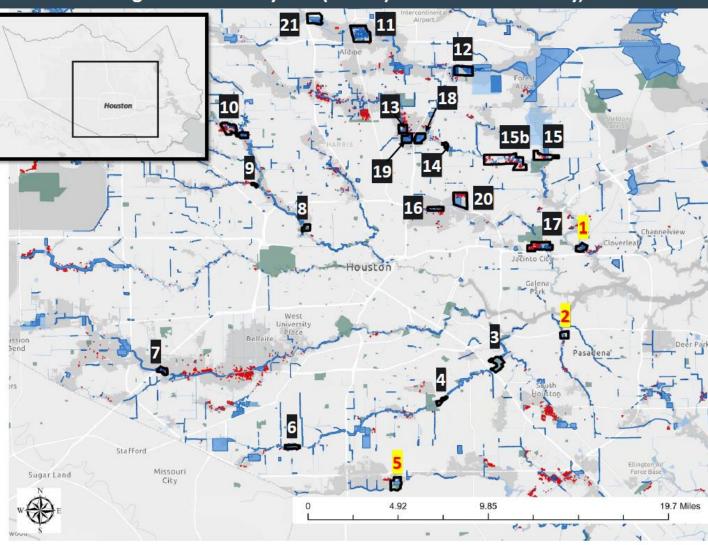
Buyouts dataset and Flood Control ROW by the Harris County Flood Control District (HCFCD). Candidate Buyout dataset by the Institute for a Disaster Resilient Texas (IDRT). Floodplains data by the Federal Emergency Management Agency (FEMA). Other datasets such as Parks, Highways, etc. from the Houston Galveston Area Council (HGAC) GIS data portal.

#### Close-up View of Riverine Targeted Use of Buyouts (RTUBs) Sites in Harris County, TX











#### Data Sources:

Buyouts dataset and Flood Control ROW by the Harris County Flood Control District (HCFCD). Candidate Buyout dataset by the Institute for a Disaster Resilient Texas (IDRT). Floodplains data by the Federal Emergency Management Agency (FEMA). Other datasets such as Parks, Highways, etc. from the Houston Galveston Area Council (HGAC) GIS data portal.

DOI: 10.1002/ppp3.10245

#### RESEARCH ARTICLE



# A simple tree planting framework to improve climate, air pollution, health, and urban heat in vulnerable locations using non-traditional partners

Loren P. Hopkins<sup>1,2</sup> | Deborah J. January-Laura A. Campos<sup>2</sup>

Deborah J. January-Bevers<sup>3</sup> | Erin K. Caton<sup>1</sup> |

DOI:10.1002/ppp3.10

<sup>1</sup>Houston Health Department, Environmental Division, Houston, Texas, USA

<sup>2</sup>Department of Statistics, Rice University, Houston, Texas, USA

<sup>3</sup>Houston Wilderness, Houston, Texas, USA

#### Correspondence

Deborah J. January-Bevers, Houston Wilderness, 1334 Brittmoore Rd, Suite 2804, Houston, TX 77043, USA. Email: deborah@houstonwilderness.org

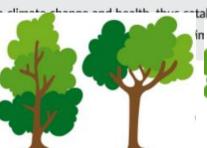
#### Societal Impact Statement

Planting trees is considered an effective method for climate change adaptation and mitigation. This framework provides a replicable blueprint to improve health, urban heat, flooding, and air pollution via a multisectoral, collaborative, environmental data-driven approach. Native tree species with targeted ecosystem services are selected, and sites are strategically identified based on environmental and health benefits, with the intent of engaging community involvement through education and large-scale tree plantings. Including non-traditional partners in the framework provides heightened awareness of the relationship between elimate change and health thus catalyz-









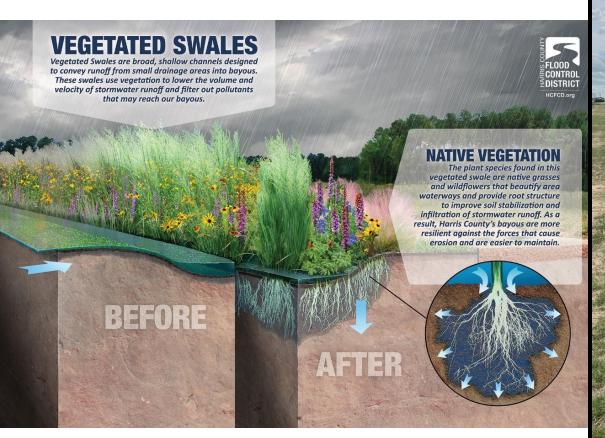




 Bioswales are being tested with native grasses and forbs on two backslope swales in west Harris County

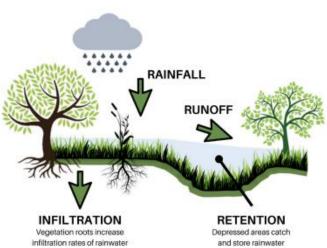
Measuring stormwater infiltration and pollutant absorption

compared to Coastal-Bermuda grass



## Bioswales vs. Rain Gardens











Native Vegetation

**Eastern Gamagrass Switchgrass Gulf Muhly** Little bluestem Big Bluestem **Indiangrass Red Lovegrass Texas Grama** Blackeyed Susan **Indian Blanket Swamp Sunflower** 



#### **Greens Bayou RTUBs Site** Near Crooker/Moody Park (422,266 sq mt)

In progress RTUBs Activities cover about 33,322 square meters

In progress RTUBs Activities covering about 33,322 square meters



2,505 Trees Planted on Existing **HCFCD Buyout Sites** 



1,214 Trees Planted on Greens Bayou Park



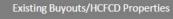
Proposed Bioswale #1 on Greens Bayou Park



Proposed Bioswale #2/ Reestablished Riparian Wetland

#### **Buyouts and Other Features**

**Parks** 

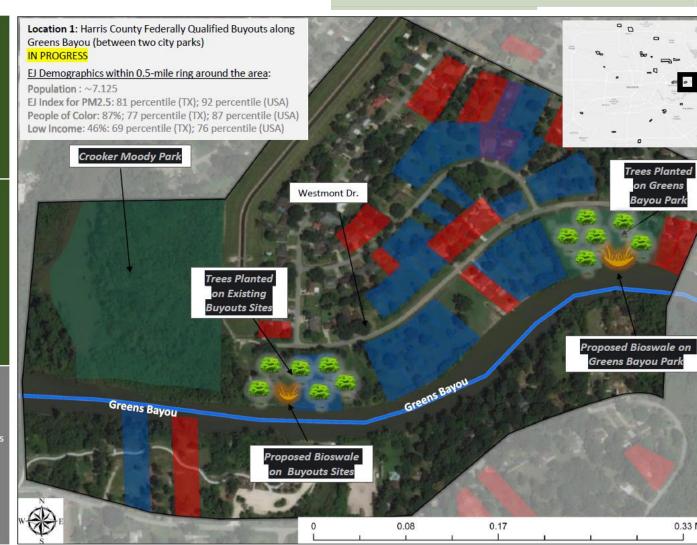




Candidate Buyouts

In progress RTUBs Area

**Bayous and Rivers** 









Buyouts dataset and Flood Control ROW by the Harris County Flood Control District (HCFCD). Candidate Buyout dataset by the Institute for a Disaster Resilient Texas (IDRT). Floodplains data by the Federal Emergency Management Agency (FEMA). Other datasets such as Parks, Highways, etc. from the Houston Galveston Area Council (HGAC) GIS data portal. EJ Demographics dataset from The Environmental Protection Agency (EPA) Environmental Justice Screening Mapping Tool (version 2.2)

0.33 Miles



### Clear Creek RTUBs Site near Christia V. Adair Park (767,747 sq mt)

Site Area: 767,747 sq mt Proposed NBS Area: ~21, 788 sq mt

#### GSI Locations on Site

**Existing RTUBs Native Trees** 

**Proposed Native Trees** 

Proposed Bioswale Location

Proposed Reestablished Riparian Wetland

#### **Buyouts and Other Features**

**Parks** 

**Existing Buyouts/HCFCD Properties** 

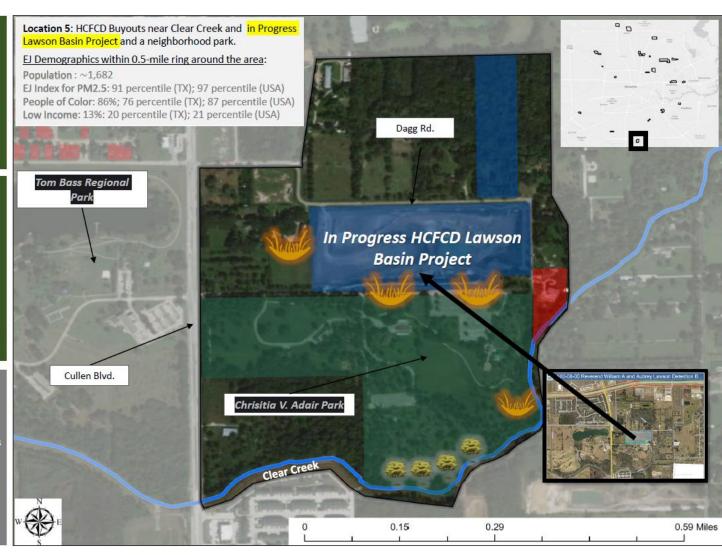
Candidate Buyouts

In progress RTUBs Area

**Bayous and Rivers** 









#### Data Sources:

Buyouts dataset and Flood Control ROW by the Harris County Flood Control District (HCFCD). Candidate Buyout dataset by the Institute for a Disaster Resilient Texas (IDRT), Floodplains data by the Federal Emergency Management Agency (FEMA), Other datasets such as Parks, Highways, etc. from the Houston Galveston Area Council (HGAC) GIS data portal. EJ Demographics dataset from The Environmental Protection Agency (EPA) Environmental Justice Screening Mapping Tool (version 2.2)





### Halls Bayou RTUBs Site **Near Bretshire Detention** HCFCD #P518-04-00

Site Area: 531,812 sq mt Proposed NBS Area: ~

#### **GSI Locations on Site**

Existing RTUBs Native Trees

**Proposed Native Trees** 

Proposed Bioswale Location

Proposed Reestablished Riparian Wetland

#### **Buyouts and Other Features**

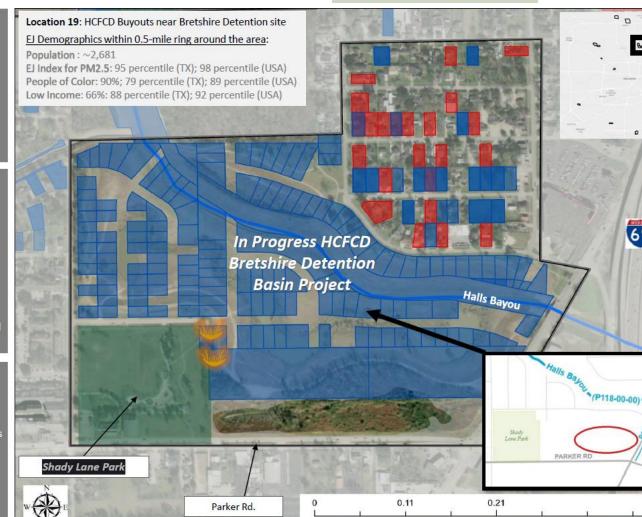
Parks

**Existing Buyouts/HCFCD Properties** 

Candidate Buyouts

In progress RTUBs Area

**Bayous and Rivers** 









#### Data Sources:

Buyouts dataset and Flood Control ROW by the Harris County Flood Control District (HCFCD). Candidate Buyout dataset by the Institute for a Disaster Resilient Texas (IDRT). Floodplains data by the Federal Emergency Management Agency (FEMA). Other datasets such as Parks, Highways, etc. from the Houston Galveston Area Council (HGAC) GIS data portal. EJ Demographics dataset from The Environmental Protection Agency (EPA) Environmental Justice Screening Mapping Tool (version 2.2)

69

0.43 Miles





## A Bioswale has been built here



This bioswale design serves the community as an infiltration system.

Through the use of native grasses-it's made to absorb lots of stormwater runoff and pollutants, hold soil to assist with erosion control, and add ecological diversity to the landscape.



Benefits of Native Grasses in Bioswales and on other Green Spaces

#### **LEARN MORE HERE!**









United States Department of Agriculture

**Natural Resources Conservation Service** 





## Speaker Presentation:

# Central Region GLO River Basin Flood Study, MATCH Tool

Will Parker, Mitigation Outreach Specialist H2O Partners Inc.





Texas General Land Office

# Mitigation Assistance for Tailoring Choices (MATCH) Tool

#### **Program Background**

The Texas General Land Office (GLO) is leading a multi-year Combined River Basin Flood Studies program. The studies were launched in 2020 and included the 49 counties which received a presidential disaster declaration due to the impact of Hurricane Harvey, plus four counties in the Lower Rio Grande Valley that received a presidential declaration for flooding in 2015. Led by the GLO's Community Development and Revitalization Program (GLO-CDR), the studies aim to increase resiliency by helping communities prioritize effective mitigation strategies and pursue additional implementation funds.

GLO is developing a Mitigation Assistance for Tailoring Choices (MATCH) Tool as part of the Combined River Basin Flood Studies program.

#### **MATCH Tool Overview**

The MATCH Tool will be a publicly accessible, web-based platform to support communities pursuing flood mitigation and resilience projects.

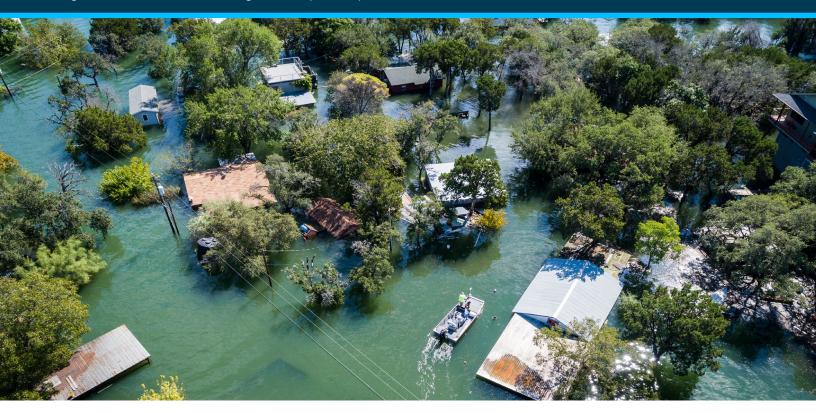
#### **MATCH Tool Goals**

- Empower communities by reducing administrative, technical, and financial barriers to mitigation project funding;
- Connect unfunded community flood mitigation projects and funding sources;
- Align state mitigation investments and identify opportunities to leverage state and federal funding sources;
- Increase the number of successful, competitive community mitigation and resilience project applications in Texas,
- Provide opportunities for communities to explore winning ideas and effective flood resilience practices.

### **Existing Funding Sources**

Federal and state agencies have made historic commitments in recent years to support flood mitigation and resilience.

- \$ 3.46B through Hazard Mitigation Grant Program
- for Texas alone Hazard
  Mitigation Grant Program
- \$ 3.5B through Infrastructure Investment and Jobs Act for
- for the FEMA Building Resilient Infrastructure and Communities (BRIC) program in 2022
- through Safeguarding Tomorrow through Ongoing Risk Mitigation Act of 2020 for FY2022-FY2026



#### **Barriers to Accessing Funding**

Despite the influx of available federal and state funding programs to support flood mitigation and resilience, there are significant barriers to accessing financing. These barriers can generally be categorized as one or more of the following:



#### **Administrative**

Challenges associated with policies and procedures to track and apply for grants.



#### Technical

Challenges include a lack of community project data and

insufficient technical knowledge to support applications.



#### **Financial**

Challenges accessing resources to develop grant applications and

meet local cost-share or match requirements.

#### **Get Involved**

Are you interested in getting involved in these efforts? The GLO is collecting feedback to shape the development of the MATCH Tool. We want to hear about your community's efforts with flood mitigation and resilience funding. Visit the MATCH website by scanning the QR code to share your experience.







Next Meeting Reminder July 17, 2024, 1:30 - 3:30 PM

Virtual via Zoom



# Other Announcements or Business



### Other Announcements

- Take a Hike: Building and Connecting Trails Across the Region- Regional Conservation Initiative Peer Exchange (Thursday, April 25, 2024, at 9:00 AM, at H-GAC)

  Experts from National Parks Services and Rails to Trails Conservancy will share insights on trail planning and available resources. Representatives from Harris County Precinct 3 and the FM 1093 Rails to Trails Local Government Corporation will share their experiences with planning and building trails in the region.
- MATCH Tool Virtual Preferences Survey, The MATCH Team's development of the MATCH Tool is launching a visual preferences survey to collect data from an even wider audience of potential users.
- TWDB 2023 Texas Quick Guide, a resource tool on floodplain management designed for both floodplain managers and communities now available!
- Two Public Comment Periods Open, Changes to FEMA's Individual Assistance Program & NFIP New Standard Flood Insurance Policy, Homeowner Flood Form
- FEMA Webinar- Identifying Repeatedly Flooded Structures in Your Community TOMORROW-Thursday, April 18, 2024 from 11:00 AM 12:00 PM



# Member Roundtable



We are adjourned, thank you for attending!

### Contact

Amanda Ashcroft, AICP Planner, H-GAC 713-993-4545 Amanda.Ashcroft@h-gac.com

