



# Repetitive Loss Area Analysis

2023



## Table of Contents

### **I. Repetitive Loss Area Analysis**

#### **Background**

#### **Setting**

### **II. The RLAA Process**

#### **STEP 1: Contact Property Owners**

Mailout

RLAA Webpage

#### **STEP 2. Contact Other Agencies**

Summary

#### **STEP 3. Data Collection**

Multiple Property Areas

Single Property Areas

#### **STEP 4. Review of Mitigation Alternatives**

Mitigation Alternatives

Mitigation Funding

#### **STEP 5. Conclusion and Recommendations**

Conclusion

Recommendations

**Appendix A – Mailout .....**

**Appendix B – Resident Survey .....**

## Repetitive Loss Area Analysis

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City of Austin – Watershed Protection Department

Repetitive Loss Area Analysis



## Background

Flooding is one of the most common natural hazards in the United States. More than 20,000 communities experience floods and this hazard accounts for more than 70 percent of all Presidential Disaster Declarations. In the United States, over eight million residential and commercial structures are currently built in areas at risk to flooding. The cost of recovery is spread over local, state, and federal governments and the victims themselves, who are directly affected by these disasters.



The National Flood Insurance Program (NFIP) is continually faced with the challenge of balancing the financial soundness of the program with the competing expectation of keeping premiums affordable. Repetitive loss properties are one of the two largest obstacles to achieving financial soundness of the NFIP. Since the inception of the NFIP, almost \$12.5 billion has been paid to repetitive loss properties, about one-fourth of all NFIP payments. There are currently about 160,000 repetitive loss properties in the US. About 10,000 of those properties are considered to be severe repetitive loss properties. Even though only about 44% of the

repetitive loss properties are insured, they are still a drain on the NFIP. Currently, repetitive loss properties represent 1.3% of all policies, but account for 15% to 20% of flood claims.

Private insurance companies faced with high losses have several options to keep a profit. They can raise income through premium rate increases, decrease payments to insurers or reduce the exposure of the hazard. Unfortunately, the NFIP can only do what is allowed by statute. If losses increase, the Federal Emergency Management Agency (FEMA) is authorized by Congress to make incremental adjustments to increase the premium rates and reduce overall coverage. FEMA is not permitted to eliminate coverage for any policy holder including high-risk properties. Actuarial rates cannot be charged to buildings built before State and local floodplain management regulations went into effect. Since repetitive flood claims must be paid, FEMA has no choice but to spread these costs among all policyholders.

Sometimes floodplain management regulations mitigate repetitive flood losses when a building is substantially damaged. A structure where the cost of the repair is equal to or exceeds 50 percent of the building's value is considered substantially damaged. A substantially damaged building must be brought up to the same flood protection level as a new building under a community's floodplain management ordinance. Many repetitive loss buildings are not in a regulated floodplain, or they do not get substantially damaged and remain at risk to future damage.



Many owners of properties that experience repetitive flooding are not aware of the magnitude of damage they are exposed to because they either purchased the property after the last flood or the seller or lender did not disclose the flood hazard.

The City of Austin has been a participant in the NFIP since September 1981. In addition to meeting the basic requirements of the NFIP, the city has completed additional components to participate in the Community Rating System (CRS) program since October of 1991. The City of Austin is currently a CRS Class 6 which rewards all policyholders in the SFHA with a 20 percent reduction in their flood insurance premiums. Non-SFHA policies (Standard X Zone policies) receive a 10% discount, and preferred risk policies receive no discount.

As of August 22, 2023, there are currently 5,660 NFIP Policies in force in the City of Austin with insurance coverage of \$1.47 billion. There have been 930 paid losses against the NFIP totaling more than \$42.3 million in the past 10 years.

A repetitive loss property does not have to currently be carrying a flood insurance policy to be considered a repetitive loss property. In some cases, a community will find that properties on its repetitive loss list are not currently insured. An insured property with claims on that property will make it a repetitive loss property. Once it is designated as a repetitive loss property, that property remains as a repetitive loss property from owner to owner; insured policy to no policy; and even after that property has been mitigated. There are 279 unmitigated repetitive loss properties in the City of Austin and 52 of those properties are currently insured.

## TERMINOLOGY

**REPETITIVE LOSS:** Any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period, since 1978. Two of the claims paid must be more than 10 days apart but, within 10 years of each other. A repetitive loss property may or may not be currently insured by the NFIP.

**SEVERE REPETITIVE LOSS:** As defined by the Flood Insurance Reform Act of 2004, SRLs are 1-4 family residences that have had four or more claims of more than \$5,000 or at least two claims that cumulatively exceed the building's value. The Act creates new funding mechanisms to help mitigate flood damage for these properties.

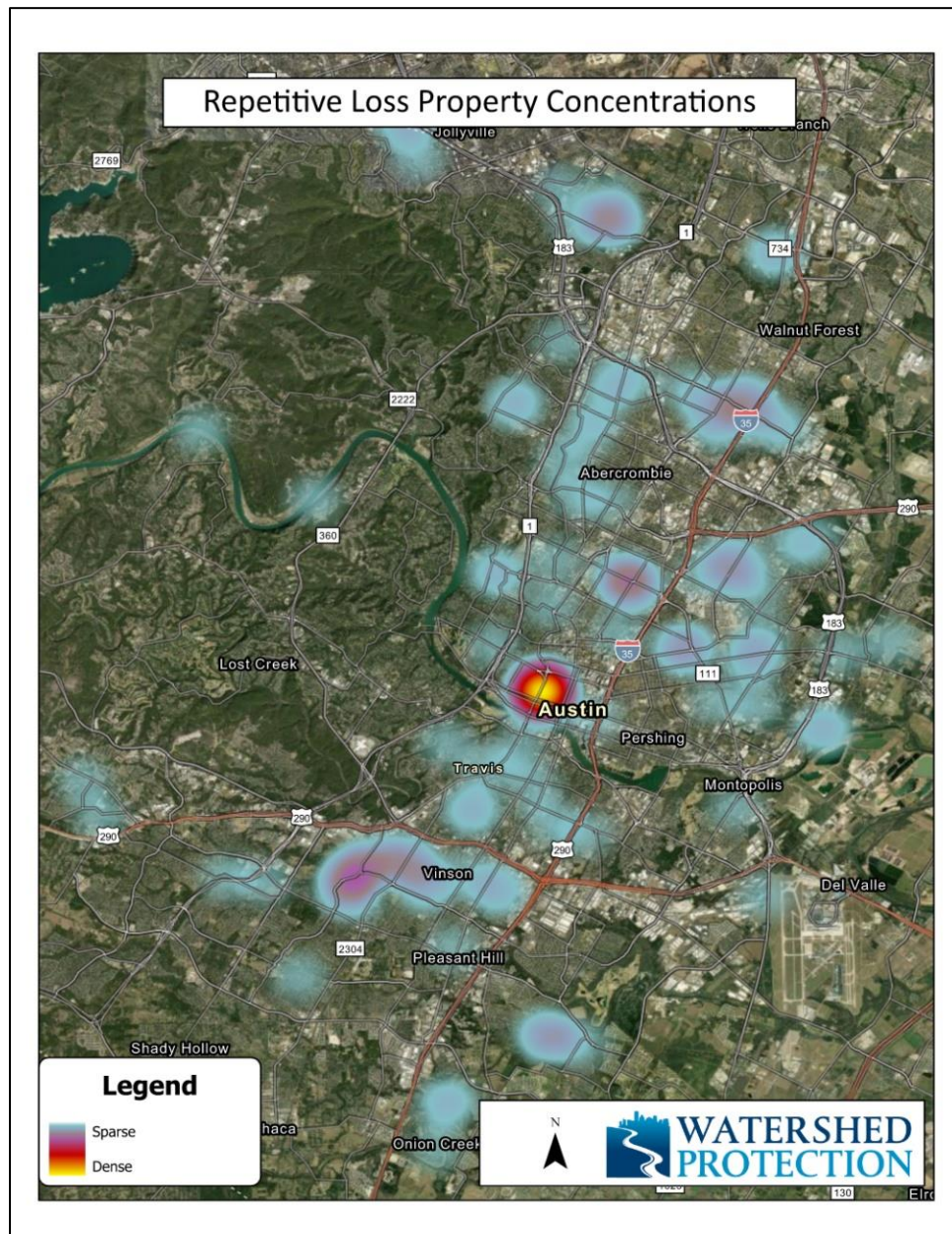
## Setting

The City of Austin is the Capital of the State of Texas and lies in the heart of flashflood alley. Texas is prone to extremely heavy rains and flooding, holding half of the world-record rainfall rates (48 hours or less). The City of Austin is located primarily in Travis County, although part of the City's border extends into Williamson and Hays Counties. The City of Austin is situated on the Colorado River and is located at the eastern edge of the Hill Country and Edwards Plateau, about 236 miles from the Mexican Border. The western portion of the City is made up of scenic rolling hills and limestone rock, whereas the eastern portion is more flat. Interstate 35



runs through the City of Austin, which occupies a total land area of 301.86 square miles in the Central Texas Hill Country. The City of Austin is known for its parks and green space, including greenbelts and lakes – there are three man-made lakes within the City’s limits: Lady Bird Lake, Lake Austin, and Lake Walter E. Long. Additionally, the foot of Lake Travis, including Mansfield Dam, is located within the City’s limits.

There are 279 unmitigated repetitive loss properties in the City of Austin. Below is a heat map showing general concentrations of repetitive loss properties throughout Austin.



## The RLAA Process

The RLAA development process requires five sequential steps outlined in Section 510 of the 2017 *CRS Coordinator's Manual*. This RLAA included all five planning steps included in the 2017 CRS Coordinator's Manual and the Activity 510 guidance document from 2017, Developing a Repetitive Loss Area Analysis. This RLAA included all five planning steps included in the 2017 CRS Coordinator's Manual and

**Step 1:** Advise all the properties in the repetitive loss areas that the analysis will be conducted and request their input on the hazard and recommended actions.

**Step 2:** Contact agencies or organizations that may have plans or studies that could affect the cause or impacts of the flooding. The agencies and organizations must be identified in the analysis report.

**Step 3:** Visit each building in the repetitive loss area and collect basic data.

**Step 4:** Review alternative approaches and determine whether any property protection measures or drainage improvements are feasible.

**Step 5:** Document the findings. A separate analysis report must be conducted for each area.

### Step 1: Contact Property Owners

#### *Property Owner Mailouts*

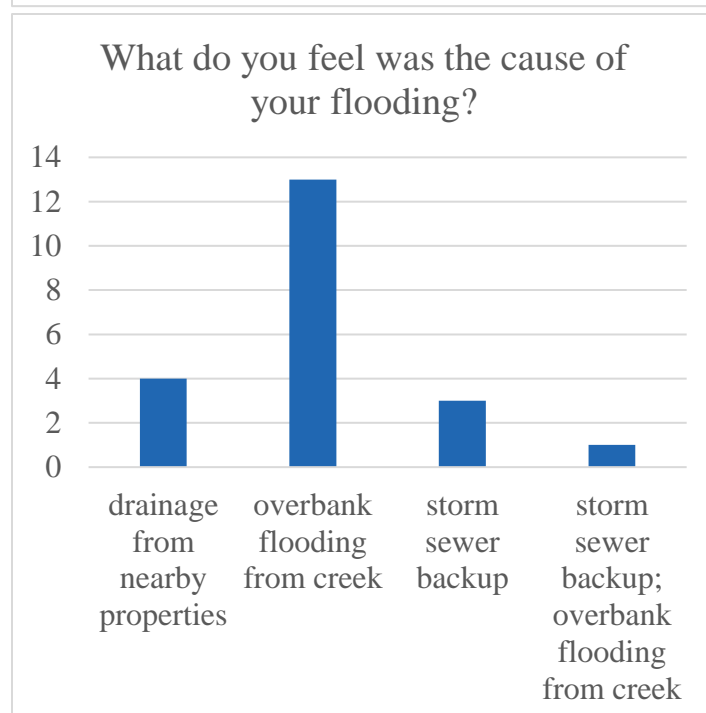
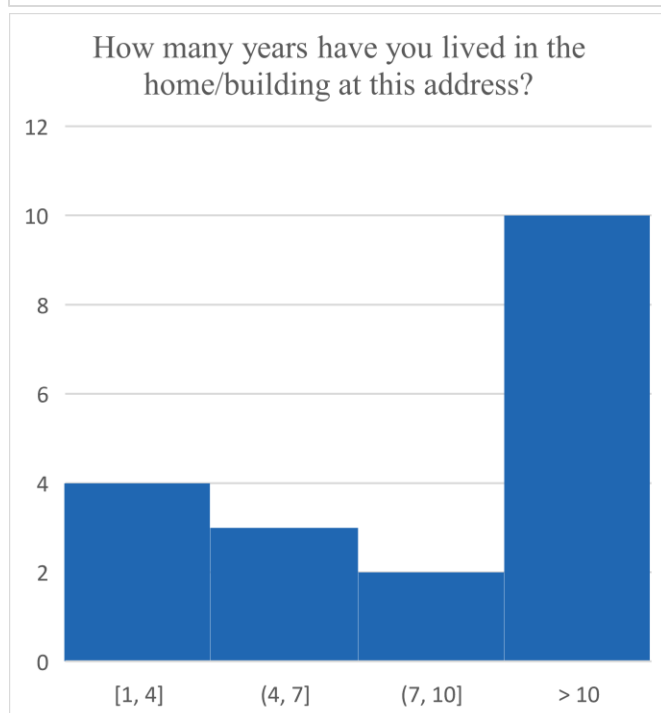
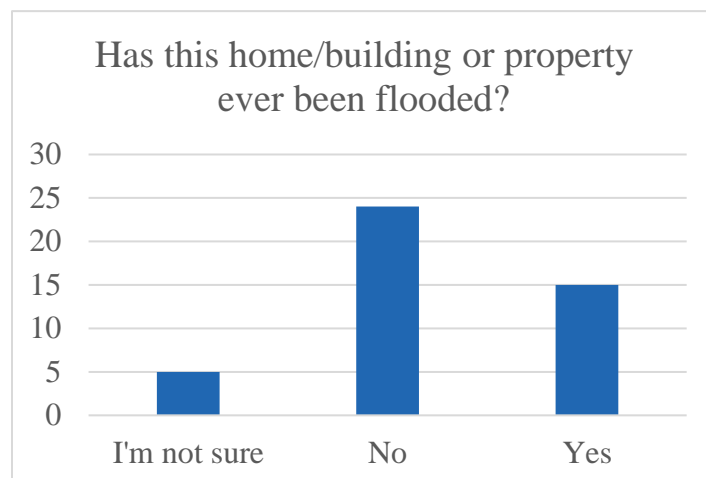
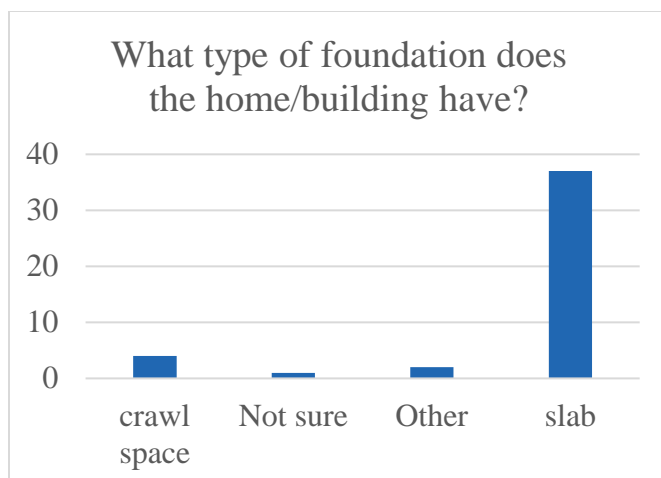
The City of Austin sent mailouts to approximately 600 residents informing them about flood preparedness, providing them with information about resources, and directing them to the RLAA webpage which houses the online resident survey. PDF's of the mailout materials can be found in Appendix A.

#### *Online Survey*

The resident survey is housed on the RLAA webpage. The survey is available in English and Spanish and a PDF of the survey can be found in Appendix B.

#### *Survey Results*

Following the mailouts, the City received 46 responses to the RL survey. Each response was tied to the relevant repetitive loss area and analyzed. General responses are summarized below. Actionable comments were identified and incorporated into the analysis of the relevant repetitive loss area.



## RLAA Webpage

The RLAA landing page is hosted on the City of Austin's website. The site includes a link to the digital survey, a timeline of the RLAA development process, a heat map showing general locations of repetitive loss properties, and the FEMA definition of repetitive loss properties. residents information of the City's Floodplain Administrator, Kevin Shunk, is also included if resident's have further questions. The URL for the site is <https://www.austintexas.gov/page/repetitive-flooding>.



## Step 2: Contact Other Agencies

The City already actively communicates with relevant agencies regarding flooding and flood mitigation in identified repetitive loss areas. Multiple datasets obtained from various other agencies and City departments were utilized for this analysis.

Data from the Travis County Appraisal District (TCAD) was collected for property owners contact information, as well as information on existing homes such as date of construction and size.

FEMA region 6 offices were contacted to ensure the most up to date NFIP claims data was being utilized for the analysis.

Current and Historic LiDAR and topographic data was collected for use in the area analysis both from City of Austin datasets and GIS data obtained from TNRIS (now TXGeo). Additionally, historic aerial photographs obtained from the Austin History Center were utilized for creation of the repetitive loss areas and investigation into causes of flooding.

Finished floor elevation data was derived from multiple sources including; archived elevation certificates, floodplain study survey data, project feasibility studies, and estimation from LiDAR data and field reconnaissance.

Within Watershed Protection coordination and data sharing was done with the Project Design and Delivery group for updates on any Capital Improvement Projects, drainage improvements, or future planned development affecting identified repetitive loss properties.

### Agencies Contacted/References:

- Travis County Appraisal District (TCAD)
- City of Austin WPD Project Design and Delivery
- TNRIS
- Austin History Center
- TWDB
- FEMA Region 6

## Step 3: Data Collection

### Areas with multiple Properties

A summary of repetitive loss areas with multiple properties is shown in the table below. Areas are grouped by presumed problem type. Further explanation of each area can be found further down in the section.

Area	Name	Number of Properties	Problem Statement
1	Lower Shoal	18	Pre-FIRM Development
7	South Brook	53	Pre-FIRM Development



14	Carlow	2	Stormwater/Localized Flooding
15	Burrough Dr	25	Pre-FIRM Development
16	Indio	45	Pre-FIRM Development
17	Pawnee Pkwy	5	Pre-FIRM Development
19	Emerald Forrest	91	Pre-FIRM Development
20	South 2nd St	2	Stormwater/Localized Flooding
21	Buried Creek	2	Stormwater/Localized Flooding
23	Upper Onion	86	Development Located in Floodplain
26	Lower Onion	7	Development Located in Floodplain
27	Hwy 183/Airport Blvd	2	Pre-FIRM Development
29	Shelton Rd	8	Pre-FIRM Development
30	South 6th St	5	Pre-FIRM Development
32	East Bouldin AO	2	Stormwater/Localized Flooding
52	Champion Dr	2	Stormwater/Localized Flooding
56	Wells Branch	2	Stormwater/Localized Flooding
65	Grayson	27	Pre-FIRM Development
66	Temple	4	Stormwater/Localized Flooding
68	Whispering Valley	6	Pre-FIRM Development
69	Quail Park	25	Development Located in Floodplain
70	Quail Field	33	Development Located in Floodplain
72	North Creek	7	Development Located in Floodplain
73	Florence	12	Pre-FIRM Development
76	Hyde Park	65	Pre-FIRM Development
81	Larkwood	2	Stormwater/Localized Flooding

Problem Statement	Number of Properties
Development Located in Floodplain	158
Pre-FIRM Development	362
Stormwater/Localized Flooding	16
<b>Total Properties</b>	<b>536</b>

**Problem Statement 1: Pre-FIRM Development – repetitive loss properties in these floodplains were constructed prior to FIRM release. See subareas below for further details.**

**Area 15: Burrough Dr** – This area is adjacent to the confluence of the Cherry Creek Tributary with the Williamson Creek Mainstem. The multiple flooding sources for this area increase the difficulty in identifying flood risk reduction projects that fully remove the flood risk. The homes in this area were all constructed pre-FIRM. The most at-risk homes in this area have already been identified and purchased by the city.

**Area 16: Indio** – Located in the Williamson Creek floodplain, the area is made up of predominantly pre-FIRM multi family structures. The area is also adjacent to the confluence of

two tributaries with the main stem of Williamson Creek. This area falls within the Middle Williamson feasibility study area which has identified multiple solutions for flooding and was also included in an area survey about residents preferred solutions.

**Area 17: Pawnee Pkwy** – Located in the Williamson Creek floodplain, this is a small street consisting of entirely pre-FIRM development located deep within the floodplain. This area is also included in the Middle Williamson feasibility study and survey.

**Area 19: Emerald Forrest** – Located in the Williamson Creek floodplain, the homes in this area are Pre-FIRM. The homes with the most severe risk have already been bought out as phase 1 of the Middle Williamson project. The area is included in the Middle Williamson feasibility study as part of potential options for Phase 2.

**Area 27: Hwy 183/Airport Blvd** – Structures in this area are in the Carson Creek floodplain. The structures are pre-FIRM and largely sub-elevated. Respondents to survey state that redevelopment of adjacent industrial sites has resolved local drainage issues which had been the cause of past flooding however the risk of flooding from the Carson Creek tributary behind the properties remains.

**Area 29: Shelton Rd** – Structures in this area are in the Lower Boggy Creek floodplain. The area is predominantly rural, and the structures are pre-FIRM. Future redevelopment may mitigate risk to the buildings, primary risk in area is lack of egress during flood events.

**Area 30: South 6<sup>th</sup> St** – Located in the West Bouldin floodplain, the development in this area is pre-FIRM and most structures were constructed over 100 years ago. Prior City of Austin floodplain regulations provided no options for property owners to make improvements to mitigate risks to structure. Changes to development regulations in 2019 provide new options for elevating structures. Based upon responses to the survey direct communication with property owners is ongoing regarding home elevations options.

**Area 65: Grayson** – Structures are in the Boggy Creek floodplain. Multiple constraints on the floodplain including the Manor Rd. crossing and the railroad tracks on the opposite bank contribute to the flood risk and present mitigation challenges. The area is currently in the early stages of a analysis by the WPD Project Design and Delivery group. The RLAA document will be updated in the future once the feasibility study for this area is complete.

**Area 68: Whispering Valley** – Located in the Walnut Creek floodplain, this complex flooding problem is a combination of pre-FIRM development and constraints to the floodplain created by the nearby Union Pacific railroad tracks. WPD Project Design and Delivery group has completed a project analysis and a project is currently in the design phase. The project includes coordination with Union Pacific for improvements to the railroad as well as creation of a “flood bench” in existing open space and storm water improvements in the neighborhood. Additional information can be found on the project website.

**Area 73: Florence** – These structures are located deep in the Little Walnut Creek floodplain and were constructed pre-FIRM, flow constraints that existing due Interstate 35 immediately

downstream exacerbates the flood risk. 2019 changes to City of Austin floodplain regulations provide more opportunities for redeveloping existing buildings into ones designed for the flood risk. Multiple property owners have been in contact with WPD staff regarding redevelopment options.

**Area 76: Hyde Park** – Located in the Waller Creek floodplain, structures are pre-FIRM. Some redevelopment in the area consisting of replacing old pre-FIRM structures with new houses has reduced flood risk, but many pre-FIRM structures remain. WPD has explored mitigation solutions, and while options for storm water improvements in the area may reduce flood risk during smaller event no affordable mitigation solution for the properties in the floodplain has currently been identified.

**Area 7: South Brook** – These homes are located in the Scenic Brook tributary floodplain. The structures are pre-FIRM and sub-elevated. The area is currently being studied by the Watershed Protection Department. This report will be updated with more information on this area once the feasibility study has been completed.

**Area 1: Lower Shoal** – These structures are located in the Lower Shoal Creek floodplain. The development in this area is pre-FIRM. A feasibility study has been completed and is available on the WPD website, CIP solutions were determined to be prohibitively expensive at this time, solutions identified include targeted outreach and possibly a special redevelopment ordinance for the area to incentivize redevelopment with flood resistant design.

#### ***Problem Statement 2: Development located in floodplain – the developments were constructed in floodplains.***

**Area 23: Upper Onion** – This area has experienced significant flooding including floods in 2013 and 2015. Neighborhood was constructed using an old floodplain model which contained an error and underrepresented flood risk in the area. A buyout project is currently underway, and many homes have already been purchased. The complete feasibility study is available on the WPD website.

**Area 26: Lower Onion** – This area has experienced significant flooding including floods in 2013 and 2015. Neighborhood was constructed using an old floodplain model which contained an error and underrepresented flood risk in the area. A buyout project is currently underway, and many homes have already been purchased. The complete feasibility study is available on the WPD website.

**Area 72: North Creek** – This housing development was constructed in the floodplain of a previously unstudied creek. The creek will be studied with the Atlas 14 city-wide map updates. WPD Project Design and Delivery is currently working on a feasibility study for this area and the report will be updated with more information on the study has been completed.

**Area 69: Quail Park** – These homes are located in the Quail Creek Floodplain. Some drainage improvements have been made since the homes were constructed in the 1980's, however flood risk still remains.

**Area 70: Quail Field** – These homes are located in the Quail Creek Floodplain. Some drainage improvements have been made since the homes were constructed in the 1980's, however flood risk still remains.

***Problem Statement 3: Stormwater/Localized Flooding*** – The areas below generally contain fewer repetitive loss structures. The flooding problems experienced in these areas can be attributed to lack of or undersized stormwater infrastructure, and or lot specific negative drainage.

**Area 14: Carlow** – Both properties are located on a slope, runoff from uphill properties combined with negative drainage to both these homes is the presumed cause of flooding. Potential improvements to lot to lot drainage may improve the situation. Targeted outreach could possible lead to mitigation.

**Area 20: South 2<sup>nd</sup> St** – The homes in this area are built below grade, in addition there are no storm drains along the street and the affected homes collect run off from South 2<sup>nd</sup> during heavy rainfall events.

**Area 21: Buried Creek** – These homes were constructed over an existing channel which was replaced with an undersized storm drainpipe. When the storm drains reach capacity, overland flow still follows the existing channel path resulting in flooding to the structures.

**Area 32: East Bouldin AO** – The existing culverts under the adjacent railroad tracks are undersized which results in ponding of runoff when culverts reach capacity.

**Area 56: Wells Branch** – These homes are located at the low point of the street. The existing storm sewer is undersized, when it reaches capacity, excess stormwater flows through these properties as it flows towards the creek.

**Area 66: Temple** – While located in a floodplain and sub-elevated relative to the floodplain elevation, an analysis of NFIP claim dates to storm events shows the primary cause of repetitive flooding in the area is local drainage. The streets in this area do not have curb and gutter, currently the runoff from the arterial road drains through these properties towards the creek located behind them. This area is currently being studied by WPD Project Design and Delivery.

**Area 81: Larkwood** – Structures flooded in this area are located at a natural low point. During heavy rainfall, runoff draining towards the creek flows through these properties. As part of a streambank stabilization project by WPD an area inlet was added to the cul-de-sac to try and alleviate the local flood issue faced by the properties. WPD will monitor the area during future storm events to determine if the repetitive loss properties in this area should be updated to be listed as mitigated with FEMA.



**Area 52: Champion Dr** – Structures are located at a low point, during periods of heavy rainfall neighborhood runoff flows through these lots.

### Single Property Summaries

After consideration of the groups above, 57 single repetitive loss properties remain which are not clearly defined by groupings based on area or flooding source. Based on area knowledge, site reconnaissance and historic flood data we have divided the individual properties into six general categories of flooding cause. In order to comply with the Federal Privacy Act, the properties have been summarized in the table below by presumed flooding cause.

Flooding Cause	Number of Repetitive Loss Properties
Flooding cause undetermined, further investigation needed	4
Negative drainage from parking lot/driveway on property	10
Pre-FIRM	3
Runoff from adjacent property(s)	15
Structure built close to, at or below grade	9
Structure is low point on street/cul-de-sac	16
<b>Total</b>	<b>57</b>



## Step 4: Review of Mitigation Alternatives

### Mitigation Alternatives

Each subarea and cause of flooding requires individual analysis and determination of appropriate mitigation measures. The CRS's Coordinator's Manual breaks out types of mitigation activities into the six categories summarized below.

#### **CATEGORIES OF FLOODPLAIN MANAGEMENT ACTIVITIES (FEMA FIA-15, 2013)**

1. **Preventive** activities keep flood problems from getting worse. The use and development of flood prone areas is limited through planning, land acquisition, or regulation. They are usually administered by building, zoning, planning, and/or code enforcement offices.
2. **Property Protection** activities are usually undertaken by property owners on a building-by- building or parcel basis.
3. **Natural Resource Protection** activities preserve or restore natural areas or the natural functions of floodplain and watershed areas. They are implemented by a variety of agencies, primarily parks, recreation, or conservation agencies or organizations.
4. **Emergency Services** measures are taken during an emergency to minimize its impact. These measures are usually the responsibility of city or county emergency management staff and the owners or operators of major or critical facilities.
5. **Structural Projects** keep flood waters away from an area with a levee, reservoir, or other flood control measure. They are usually designed by engineers and managed or maintained by public works staff.

### Mitigation Funding

Several sources of funding are available to support flood mitigation efforts. Some mitigation efforts, such as floodproofing, are small-scale and can be implemented by a homeowner without the need for financial backing. Other mitigation actions such as Capital Improvement Projects to reduce flood risk, redevelopment, property acquisition floodplain studies and education do require more significant financial backing. The City of Austin Watershed Protection Department has a grant coordinator on staff to pursue funding opportunities and regularly works with Floodplain Office staff on grant applications for projects. Some of the most common funding sources are highlighted below:

- City of Austin Drainage Utility Fund and municipal bonds.
- FEMA Hazard Mitigation Assistance program, which includes the Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA) program, Severe



Repetitive Loss (SRL) program, and Building Resilient Infrastructure and Capacity (BRIC) program.

- Increased Cost of Compliance (ICC) coverage which is part of the flood insurance program. The program provides funding to offset the costs of bringing a substantially damaged home into compliance with floodplain regulations.
- The Texas Water Development Board (TWDB) Flood Infrastructure Fund (FIF) offers a variety of loans and grants targeted at flood control, flood mitigation and drainage projects.
- Small Business Administration (SBA) loans for disaster recovery provides low-interest loan to help property owners repair structures after a flood.

## **Step 5: Conclusion and Recommendations**

### ***Recommendations – Multi-Property Areas***

**Mitigation Action 1: Redevelopment** – Require structures rebuilt or newly constructed in floodplains, to conform with best building practices for these areas, i.e. elevated, sufficient venting, path of egress. Changes to the City of Austin Land Development Code implemented in 2019 in response to the NOAA Atlas 14 volume 11 rainfall report include changes to both strengthen City of Austin floodplain requirements and enable redevelopment of existing buildings in the floodplain. These changes include increasing freeboard to 2 feet citywide, regulating development to the FEMA 500 year floodplain (as an interim step until new ultimate condition based upon Atlas 14 floodplain studies are completed) and the creation of an exception in the code for redevelopment. This redevelopment exception allows for existing buildings in the floodplain to be replaced with new buildings provided the development does not increase the number of dwelling units in the floodplain in the case of residential development or does not increase the square footage of the building in the case of commercial development. Having been in effect for four years now the exceptions are being used to great effect, and multiple buildings located within repetitive loss areas have been subsequently replaced with new buildings having two feet of freeboard above the FEMA 500 year floodplain.

Category: Preventative

Responsibility: City of Austin Land Development Code regulations are enforced by Watershed Protection Department and the City of Austin Development Services Department, Code Enforcement Departments

Target Areas: 1,7,15,16,17,19,20,21,27,29,30,65,68,73,76

**Mitigation Action 2: Flood Mitigation Capital Improvement Projects** – Capital improvement projects (CIPs) designed to reduce flood risk to adjacent structures.

Category: Structural Projects



Responsibility: Watershed Protection Department, Transportation and Public Works Department

Target Areas:

Area: 68 – Whispering Valley

*Current Project(s):* Project includes a “flood bench”, storm sewer improvements and railroad improvements. Additional information can be found on the Watershed Protection Department projects website

Area: 69 – Quail Park

*Current Project(s):* WPD floodplain office staff have had discussions regarding this area with WPD Project Design and Delivery staff. Upon completion of another CIP project nearby in the watershed the area will be reviewed again for prioritization and a project feasibility study for this area may be initiated at that time.

Area: 70 – Quail Field

*Current Project(s):* WPD floodplain office staff have had discussions regarding this area with WPD Project Design and Delivery staff. Upon completion of another CIP project nearby in the watershed the area will be reviewed again for prioritization and a project feasibility study for this area may be initiated at that time.

Area: 72 – North Creek

*Current Project(s):* Project feasibility study is currently underway. Updates will be found on the WPD project website once the feasibility study is completed and next steps identified.

**Mitigation Action 3: Floodproofing of Property**– Floodproofing of individual properties to prevent or lessen flood damage. Dry floodproofing involves completely sealing the exterior of a structure to prevent any water from entering. Wet floodproofing involves modifying uninhabited portions of a home, such as a crawl space, so that these spaces can be inundated with floodwater without damage being caused.

Category: Property Protection

Responsibility: Property Owner

Target Areas: 1,7,14,15,16,17,19,20,21,27,29,30,32,52,56,65,66,68,73,76,81



**Mitigation Action 4: Property Acquisition**– Transferring private property to ownership by the City of Austin for open space purposes. This is an expensive option, but it provides the greatest benefit in protecting lives and property from flood damage.

Category: Preventative

Responsibility: City of Austin

Target Areas: 23,26, 69,70,72

**Mitigation Action 5: Further Study of Area**– Further investigation of an area can be conducted to confirm flooding cause and identify potential mitigation alternatives.

Category: Preventative

Responsibility: Watershed Protection Department

Target Areas: 7,66,72

**Mitigation Action 6: Education**– Provide public education about local flood hazards and flood/disaster preparedness and promote the purchase of flood insurance. Currently, the city hosts flood safety information on the official website, annually sends repetitive loss letters to properties with known repeated losses, and does regular outreach with realtors, insurance agents and other stakeholders.

Category: Preventative

Responsibility: Watershed Protection Department

Target Areas: 1,7,14,15,16,17,19,20,21,23,26,27,29,30,32,52,56,65,66,68,69,70, 72,73,76,81

### ***Recommendations – Individual Property Areas***

The individual property areas are shown below grouped by the previously identified flooding cause categories. At least one of the six mitigation actions defined above have been assigned to each of the individual property groups below.

**Flooding Cause:** Flooding cause undetermined

Number of Repetitive Loss Properties: 4

Mitigation Action: Further Study of Area, Education

**Flooding Cause:** Negative drainage from a parking lot or driveway on the property.

Number of Repetitive Loss Properties: 10

Mitigation Action: Floodproofing of Property, Education

**Flooding Cause:** Pre-FIRM

Number of Repetitive Loss Properties: 3

Mitigation Action: Redevelopment, Education

**Flooding Cause:** Runoff from adjacent property(s)

Number of Repetitive Loss Properties: 15

Mitigation Action: Floodproofing of Property, Education, Redevelopment

**Flooding Cause:** Structure built close to, at or below grade

Number of Repetitive Loss Properties: 9

Mitigation Action: Floodproofing of Property, Education, Redevelopment

**Flooding Cause:** Structure is at low point on street/cul-de-sac

Number of Repetitive Loss Properties: 16

Mitigation Action: Floodproofing of Property, Education, Redevelopment

## **Conclusion**

The City of Austin is committed to flood safety and mitigation of flood risk. The City's participation in the CRS and proactiveness in floodplain management are reflective of this commitment. Property owners with further questions regarding flood hazard and risk are encouraged to contact the City's Floodplain Administrator, Kevin Shunk.



## **Appendices**

### **Appendix A – Mailout**

### **Appendix B – Resident Survey**



# Appendix A

## Mailout





# City of Austin

Founded by Congress, Republic of Texas, 1839  
Watershed Protection Department  
P.O. Box 1088, Austin, Texas 78767

August xx, 2023

Current Owner  
Mailing  
Address

Re: **Property Address**

Dear Property Owner and Current Resident:

You have received this letter because the property at **Property Address** has the potential to experience flooding.

The City of Austin's Watershed Protection Department is currently updating our analysis of areas prone to repetitive flooding, and your property has been identified as being in one of those areas. In many instances the causes of flooding in these areas are well documented. However, additional information may help in our analysis. If you would like to provide additional information about the types and causes of the flooding problem in your area, please complete the questionnaire on our website at **[AustinTexas.gov/RepetitiveFlooding](https://AustinTexas.gov/RepetitiveFlooding)** by **August 31, 2023**. This website is also where you can view draft and final versions of our analysis when they become available.

Our department is actively working to help protect lives and property from flooding throughout the city. Measures include everything from large construction projects to flood monitoring and warning systems. However, no one can stop a flood. Due to Austin's climate and geography, there will always be a threat of flooding in some areas. We encourage you to take steps to increase your own safety and to minimize property damages in the event of a flood.

For more information, please visit our website or reach out to Kevin Shunk, Floodplain Administrator, at 512-974-9176 or [Kevin.Shunk@austintexas.gov](mailto:Kevin.Shunk@austintexas.gov).

Sincerely,

Jorge Morales, P.E., CFM, Director  
Watershed Protection Department



# City of Austin

Founded by Congress, Republic of Texas, 1839  
Watershed Protection Department  
P.O. Box 1088, Austin, Texas 78767

xx de agosto de 2023

Current Owner  
Mailing  
Address

Re: **Property Address**

Estimado propietario y residente actual:

Ha recibido esta carta porque es posible que la propiedad ubicada en **Property Address** se inunde.

El Departamento de Protección de Cuencas de la Ciudad de Austin se encuentra actualizando su análisis de las áreas propensas a inundaciones repetidas, y se ha identificado que su propiedad está en una de esas áreas. En muchos casos, las causas de inundaciones en esas áreas están bien documentadas. Sin embargo, recibir información adicional puede ayudarnos en nuestro análisis. Si desea proveer información adicional sobre los tipos y causas del problema de inundaciones en su área, por favor, responda el cuestionario en nuestro sitio web en **AustinTexas.gov/RepetitiveFlooding** antes del **3 de agosto de 2023**. En este sitio web también puede ver la versión preliminar y final de nuestro análisis cuando estén disponibles.

Nuestro departamento está trabajando activamente para ayudar a proteger vidas y propiedades contra las inundaciones por toda la ciudad. Las medidas incluyen todo, desde proyectos de construcción grandes hasta sistemas de monitoreo y advertencia. Sin embargo, nadie puede detener una inundación. Debido al clima y la geografía de Austin, siempre habrá una amenaza de inundaciones en algún lugar. Le animamos a que tome las medidas necesarias para mejorar su propia seguridad y minimizar los daños a la propiedad en caso de inundaciones.

Para más información, por favor, visite nuestro sitio web o comuníquese con Kevin Shunk, Administrador de Terrenos Inundables al 512-974-9176 o [Kevin.Shunk@austintexas.gov](mailto:Kevin.Shunk@austintexas.gov).

Atentamente,

Jorge Morales, P.E., CFM, Director  
Watershed Protection Department

# GET READY CENTRAL TEXAS!

Preparing for an emergency in advance can have a big impact on your safety and recovery. Follow these four steps to be prepared in an emergency:



MAKE  
A PLAN



BUILD  
A KIT



KNOW YOUR  
NEIGHBORS



STAY  
INFORMED

— A GOOD RULE OF THUMB IS TO HAVE CRITICAL SUPPLIES FOR SEVEN DAYS —

## PREPARING FOR A FLOOD

Here are some special considerations for preparing for a flood.

### BE AWARE

Learn about your risk of flooding. Sometimes the roads around your home or business may flood first, which means you may need to leave before water enters your home. Keep your cell phone charged or use a battery-powered radio to monitor local weather conditions. **Sign up for emergency notifications from WarnCentralTexas.org.**

### CONSIDER FLOOD INSURANCE

Get a quote for flood insurance for both your home and your possessions. It is the best way to protect yourself against financial losses from a flood. In some cases, it may even help pay the costs of elevating a substantially damaged building. Flood insurance is available to everyone in Austin.

### PROTECT YOUR PROPERTY

During storms, secure loose items such as outdoor furniture and garden tools. Keep trees trimmed to prevent damage from falling branches. If you need to evacuate and it is safe to do so, turn off your gas, water and electricity.

FOR MORE INFORMATION GO TO [ATXfloodsafety.com](https://atxfloodsafety.com)

# ¡PREPÁRENSE TODOS EN EL CENTRO DE TEXAS!

Prepararse con tiempo para una emergencia puede tener un gran impacto en su seguridad y recuperación. Siga estos cuatro pasos para prepararse para una emergencia:



HAGA  
UN PLAN



PREPARE  
UN KIT



CONOZCA A  
SUS VECINOS



MANTÉNGASE  
INFORMADO

— UNA BUENA REGLA A SEGUIR ES TENER SUMINISTROS Y RECURSOS ESENCIALES PARA SIETE DÍAS —

## CÓMO PREPARARSE PARA UNA INUNDACIÓN

Estas son algunas consideraciones especiales para prepararse para una inundación.

### MANTÉNGASE INFORMADO

Aprenda sobre su riesgo de inundaciones. A veces las calles alrededor de su casa o negocio se inundan primero, lo que significa que quizás tenga que desalojar el lugar antes de que el agua entre a su casa. Mantenga su celular cargado o use un radio de baterías para monitorear las condiciones del tiempo locales. **Inscríbase para recibir notificaciones de emergencia de [WarnCentralTexas.org](http://WarnCentralTexas.org).**

### CONSIDERE COMPRAR UN SEGURO CONTRA INUNDACIONESE

Obtenga un presupuesto para un seguro contra inundaciones tanto para su casa como para sus pertenencias. Es la mejor manera de protegerse contra pérdidas económicas causadas por una inundación. En algunos casos, quizás hasta pueda ayudar a pagar los costos de elevar una construcción que haya sufrido daños sustanciales. Los seguros contra inundaciones están disponibles para todos en Austin.

### PROTEJA SU PROPIEDAD

Durante las tormentas, asegure los artículos sueltos, tales como muebles de patio y herramientas del jardín. Mantenga sus árboles bien podados para evitar daños por ramas caídas. Si necesita evacuar y es seguro hacerlo, cierre las tomas de gas, agua y electricidad.

PARA MÁS INFORMACIÓN IR A [ATXfloodsafety.com](http://ATXfloodsafety.com)



# Appendix B

## Resident Survey



1. Property Address

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2. How many years have you lived in the home/building at this address?

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3. Do you rent or own this home/building?

Rent\_\_\_\_

Own\_\_\_\_

4. Do you know if a flood insurance policy exists for this property?

Yes, a flood insurance policy exists for this property\_\_\_\_

No, a flood insurance policy does not exist for this property\_\_\_\_

I am unsure whether or not a flood insurance policy exists for this property\_\_\_\_

5. What type of foundation does the home/building have?

Slab\_\_\_\_

crawl space\_\_\_\_

basement\_\_\_\_

Other\_\_\_\_

Not sure\_\_\_\_

5. Has this home/building or property ever been flooded?

Yes\_\_\_\_

No\_\_\_\_

I'm not sure\_\_\_\_

6. In what year(s) did this property flood?

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7. Where did this property flood and how deep did it get?

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8. What was the longest time that water stayed in the house/building? Use hours or days.

---

9. What do you feel was the cause of your flooding? Check all that affect your home/building.

storm sewer backup\_\_\_\_  
sanitary sewer backup\_\_\_\_  
standing water next to house/building\_\_\_\_  
drainage from nearby properties\_\_\_\_  
saturated ground/leaks in basement walls\_\_\_\_  
overbank flooding from creek\_\_\_\_

10. If you selected "Overbank flooding from creek" in the previous question please name the creek. (ex. Boggy Creek)

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11. Have you installed any flood protection measures on the property?

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12. Please share your contact information with us in case we need to follow up with you.

Email\_\_\_\_\_

Phone\_\_\_\_\_

Name\_\_\_\_\_

Address\_\_\_\_\_

Zip\_\_\_\_\_

Name\_\_\_\_\_