



# ATLAS 14: AUSTIN'S NEW UNDERSTANDING OF FLOOD RISK





## Overview

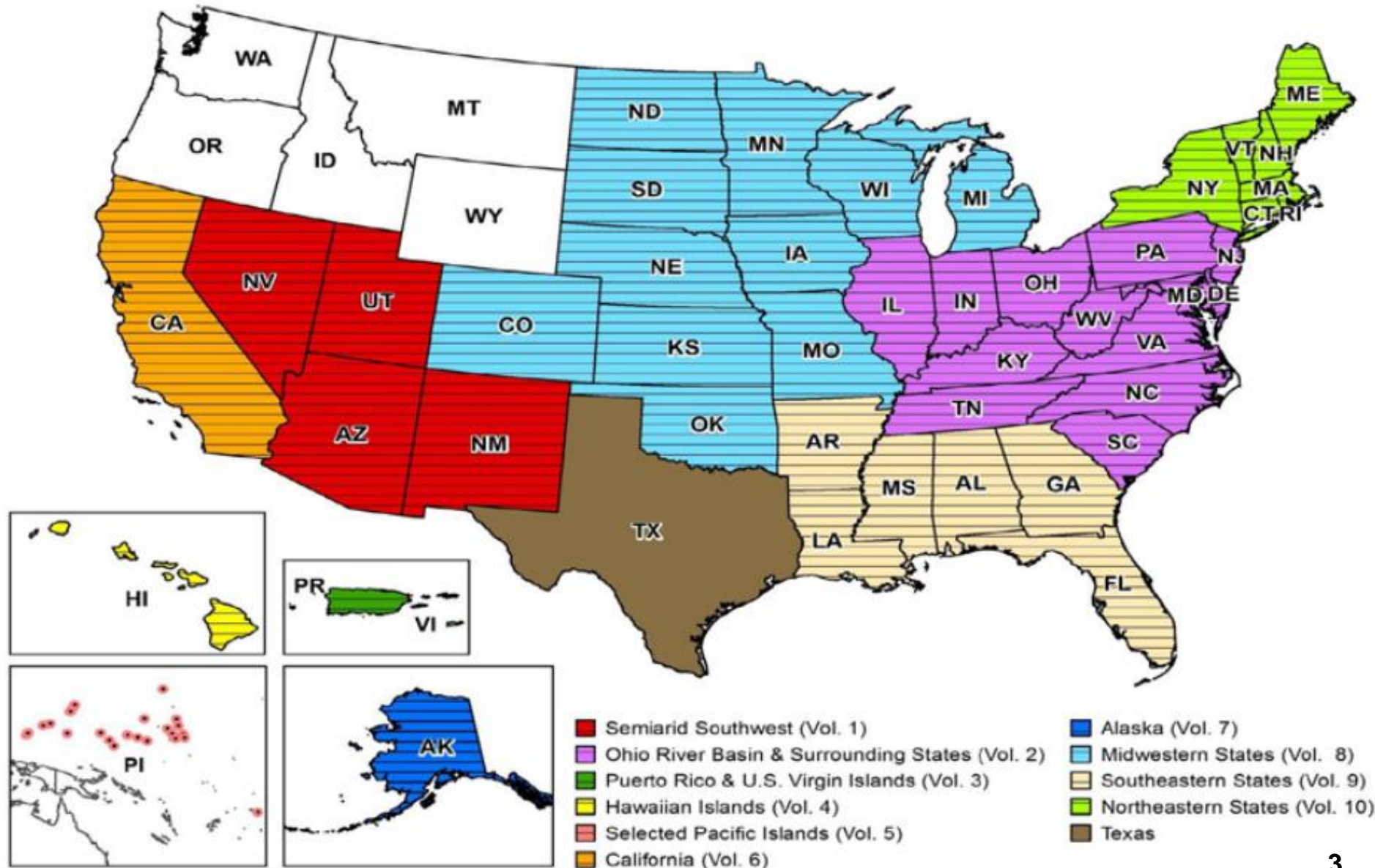
- Atlas 14 background
- Summary of key impacts from Atlas 14
- Recommended response
- Outreach

# Atlas 14 Background

- Nationwide study of rainfall intensities

## Partners

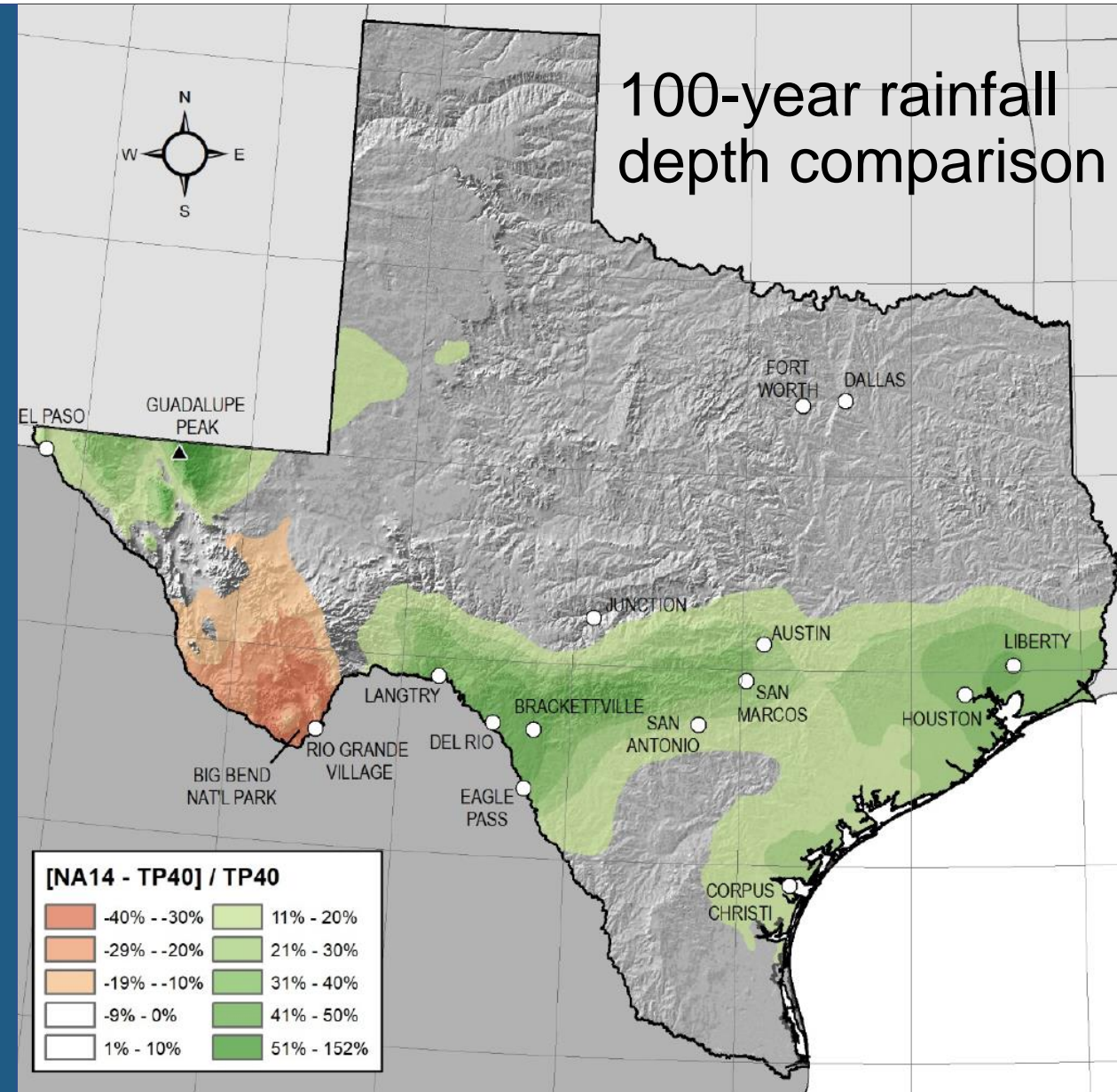
- Federal** NOAA, National Weather Service, U.S. Army Corps of Engineers, Federal Highway Administration
- State/Local** TxDOT, Harris County Flood Control District, City of Austin, et al.





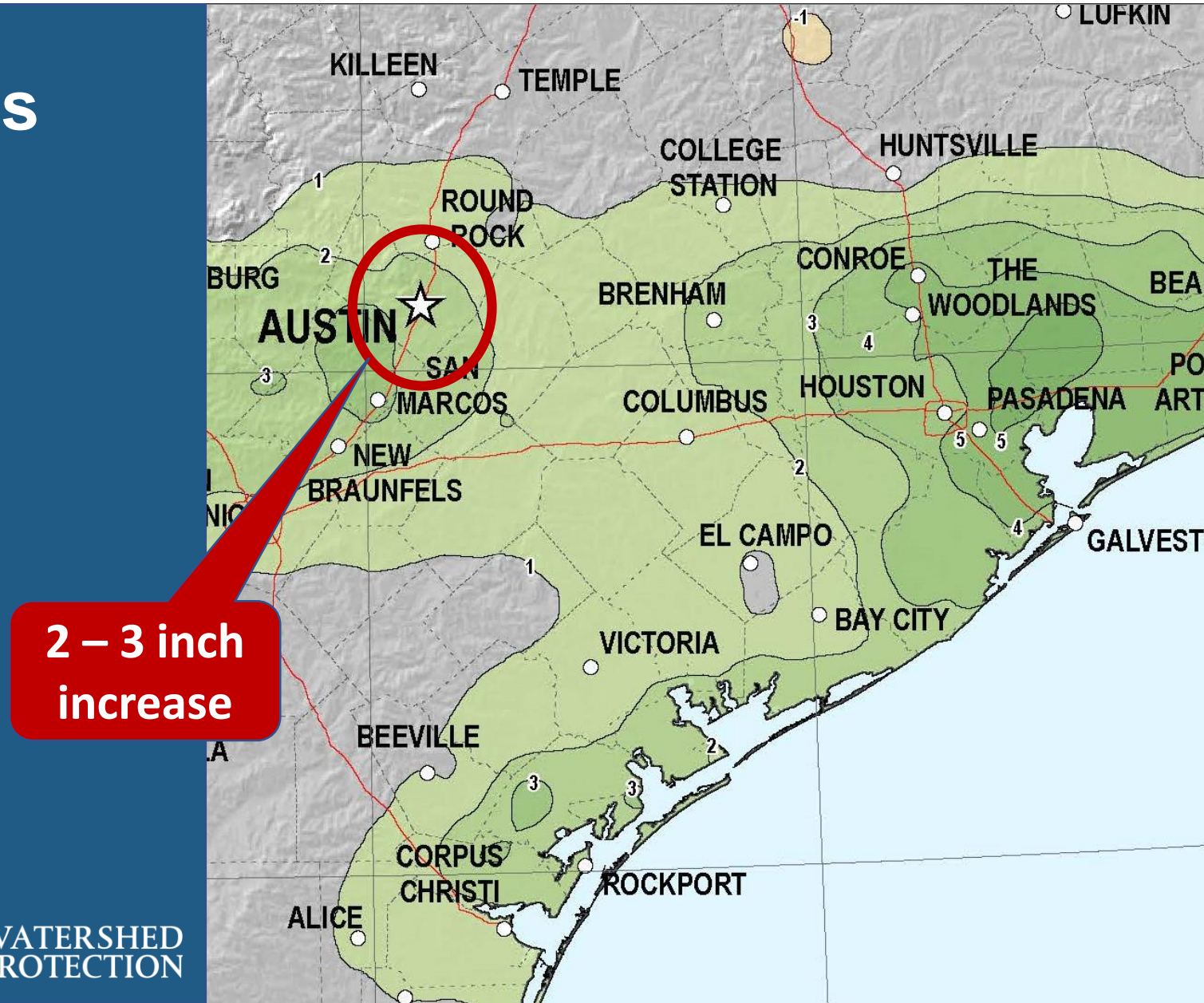
# Atlas 14 Rainfall Changes

- Nationwide examination of historic rainfall data
- Adds data from 1961 – 2017
- Colorado River watershed not significantly impacted

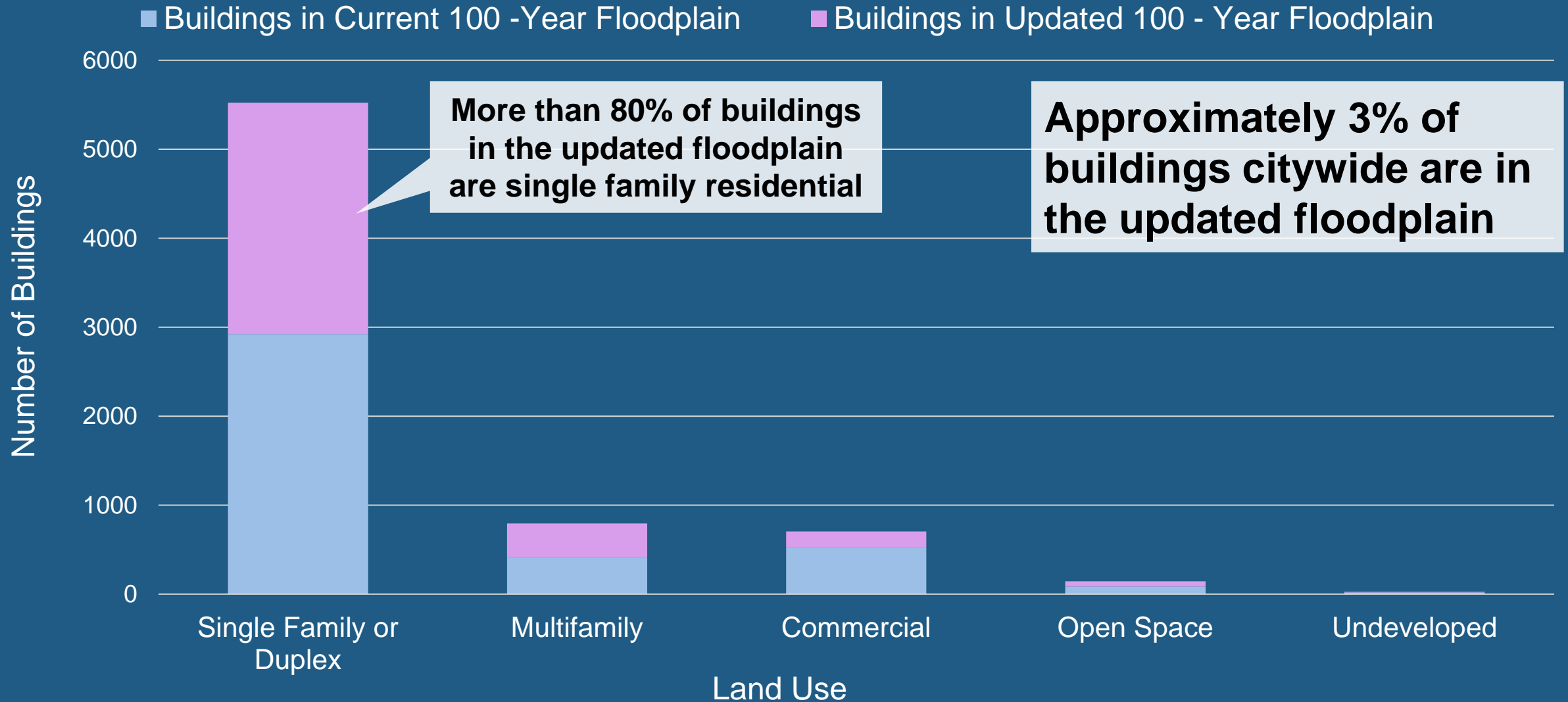


# Atlas 14 Rainfall Changes

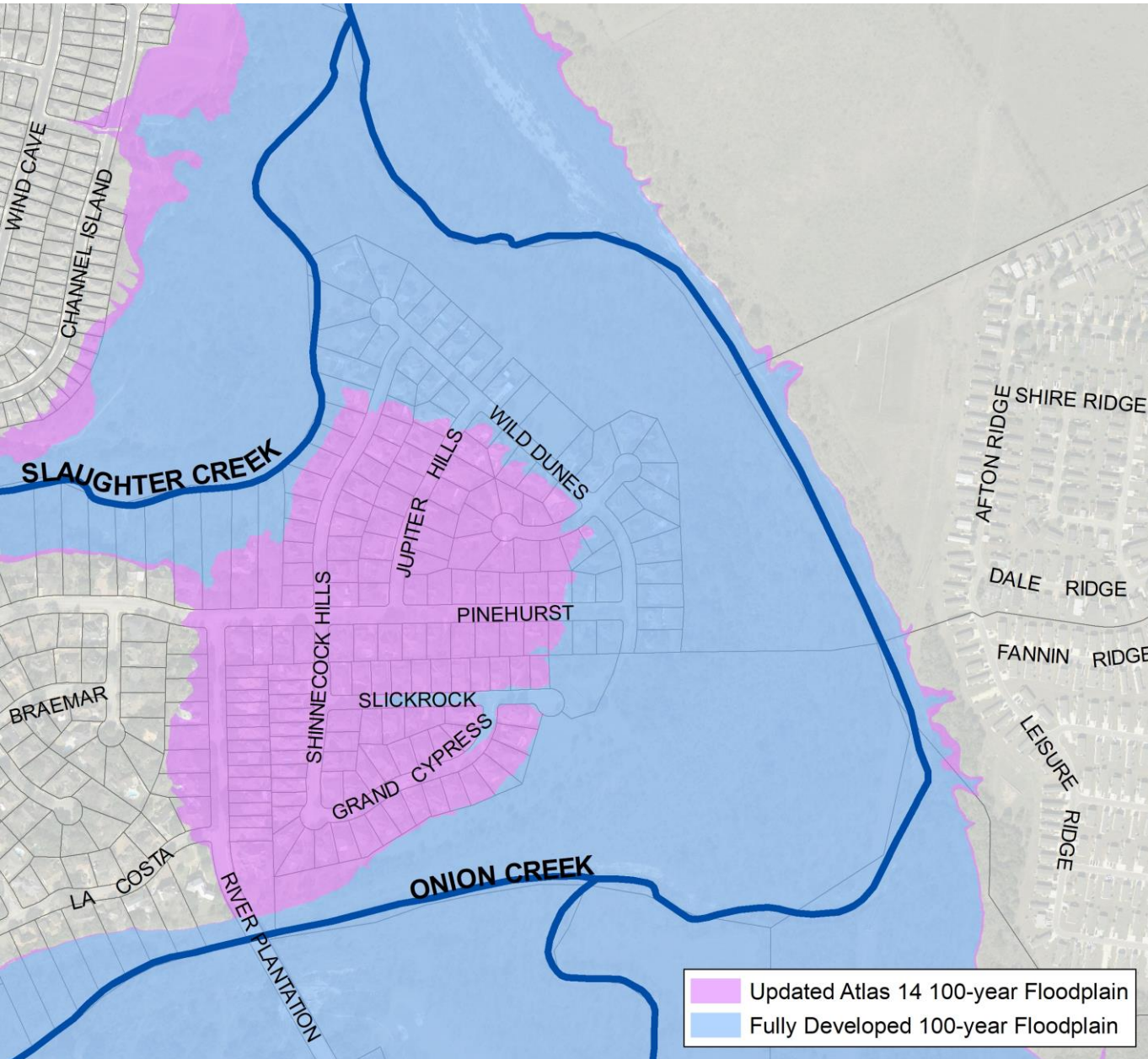
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## Buildings in the Floodplain



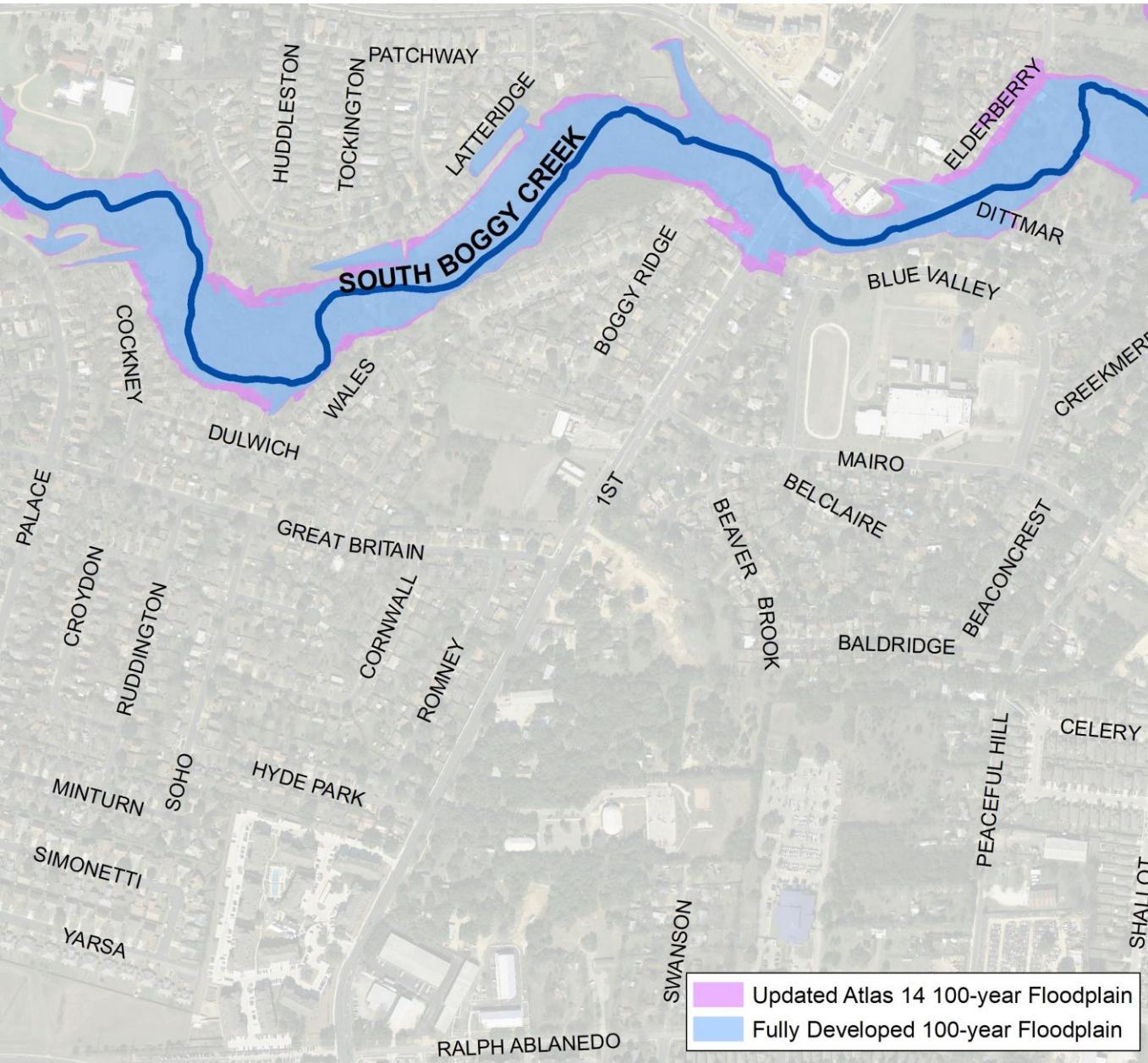




Austin's

## Floodplains Will Expand

- More homes and businesses are at risk of flooding than previously thought.
- Affects ability to develop, remodel, or redevelop property.
- Affects the need for and the cost of flood insurance.
- Floodplains will need to be re-studied.
- See impacts at [ATXfloodpro.com](http://ATXfloodpro.com)



Austin's

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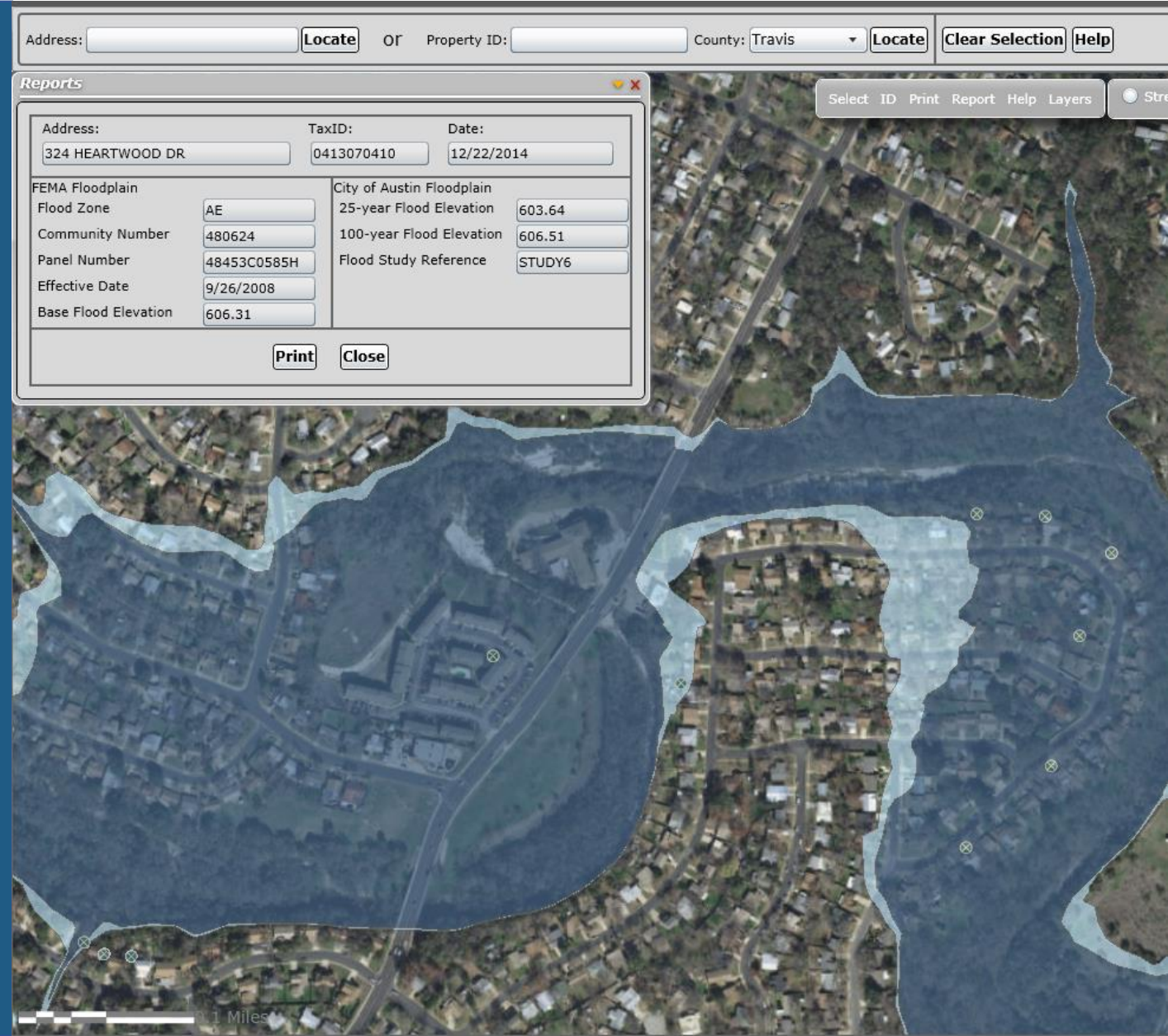


Overview of

# Flood Prevention Strategies

How do we ensure that *new* development minimizes its flood risk and the risk to others?

- Floodplain regulations
- Drainage criteria





# Recommended Response

## Step 1

Land Development Code  
amendments

## Step 2

Drainage Criteria Manual  
revisions

## Step 3

Flood Risk Evaluation



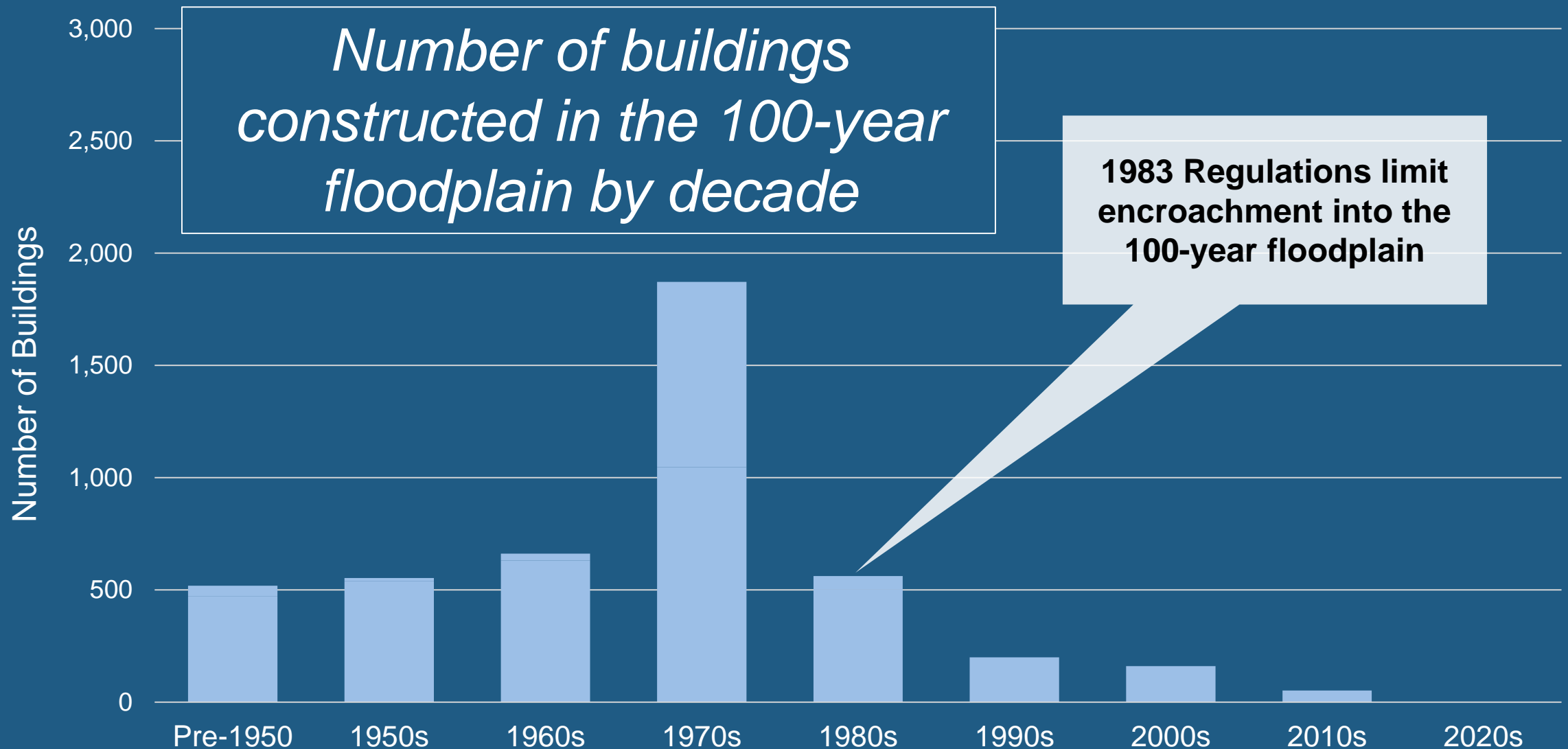


City of Austin

# Floodplain Regulation History

- 1975 – Entered FEMA emergency program; first floodplain maps
- 1983 – Entered full National Flood Insurance Program; updated maps and floodplain regulations
- 2003 – Amended regulations to include administrative variance process









## Step 1

### Land Development Code amendments

- Revise floodplain definitions
- Create a redevelopment exception
- Expand the Colorado River exception
- Increase the freeboard requirement

## Revise floodplain definitions

New 100-yr floodplain → Current 500-yr floodplain

New 25-yr floodplain → Current 100-yr floodplain

- No change to Colorado River floodplain
- Interim definitions until floodplains are re-mapped in 2 - 3 years

Storm Level	Current Rainfall Depth (24 hour storm)	Updated Rainfall Depth (24 hour storm)
100-year (1% chance)		Up to 13+ inches
500-year (0.2% chance)	13.5 inches	



## Revise floodplain definitions

New 100-yr floodplain → Current 500-yr floodplain

New 25-yr floodplain → Current 100-yr floodplain

- No change to Colorado River floodplain
- Interim definitions until floodplains are re-mapped in 2 - 3 years

### Purpose

- Limit construction of new buildings in areas with known flood risk during re-mapping process
- Limit creating existing, non-conforming structures

# Flood Risk Reduction Challenge

**7,200 buildings**

**53\* buildings**

**135+ years**

in the 100-year floodplain  
with flood risk reduced each year  
to reduce current risk

How can we increase the pace  
of flood risk reduction?



## Create a redevelopment exception

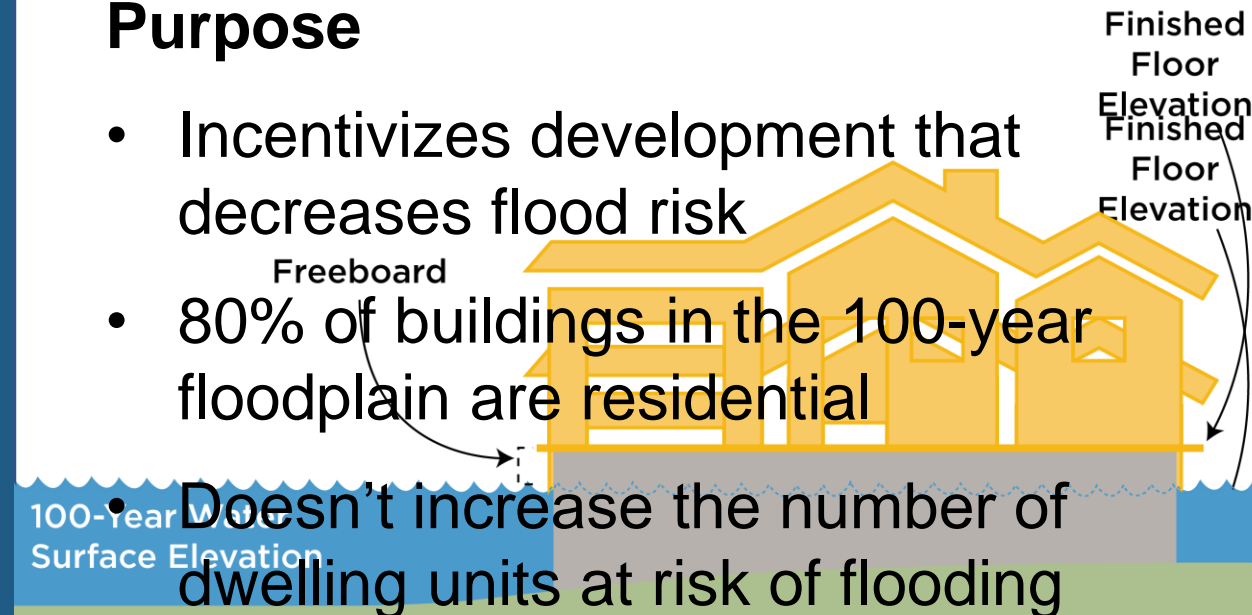
Administrative approval process for a residential building in the floodplain if:

1. Replaces an existing residential building
2. Finished floor elevation is at least 2 feet above the 100-year floodplain
3. Does not increase number of dwelling units
4. No adverse flooding impact

If these 4 conditions are met, the safe access requirement is waived

### Purpose

- Incentivizes development that decreases flood risk
- 80% of buildings in the 100-year floodplain are residential
- Doesn't increase the number of dwelling units at risk of flooding



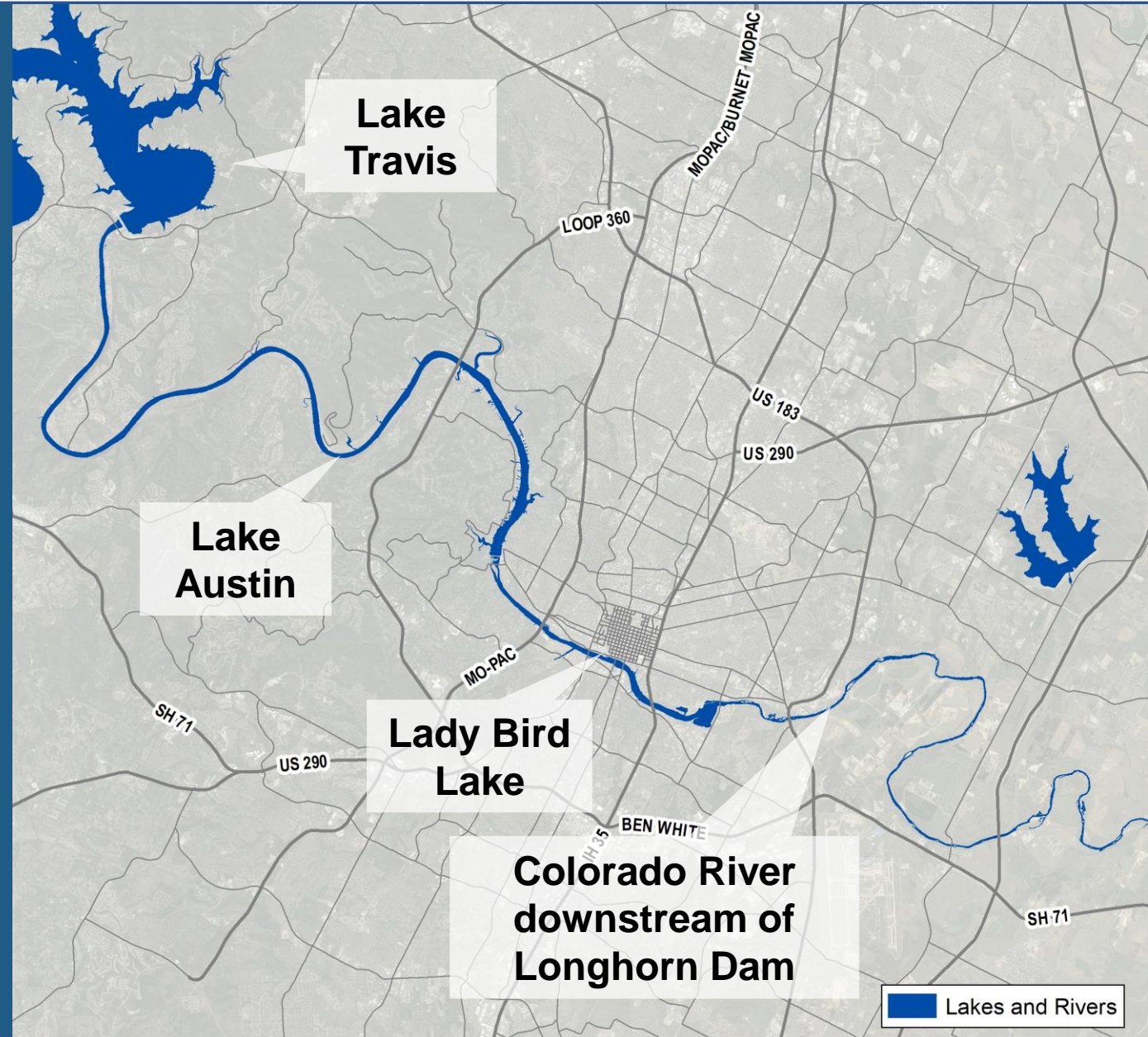
## Expand the Colorado River exception

The existing exception allows for a building to encroach on the 100-year floodplain without safe access if it is:

- Downstream of Longhorn Dam
- Along Lady Bird Lake

WPD recommends expanding this exception to include:

- Lake Austin
- Lake Travis





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- Lake Austin
- Lake Travis

### Purpose

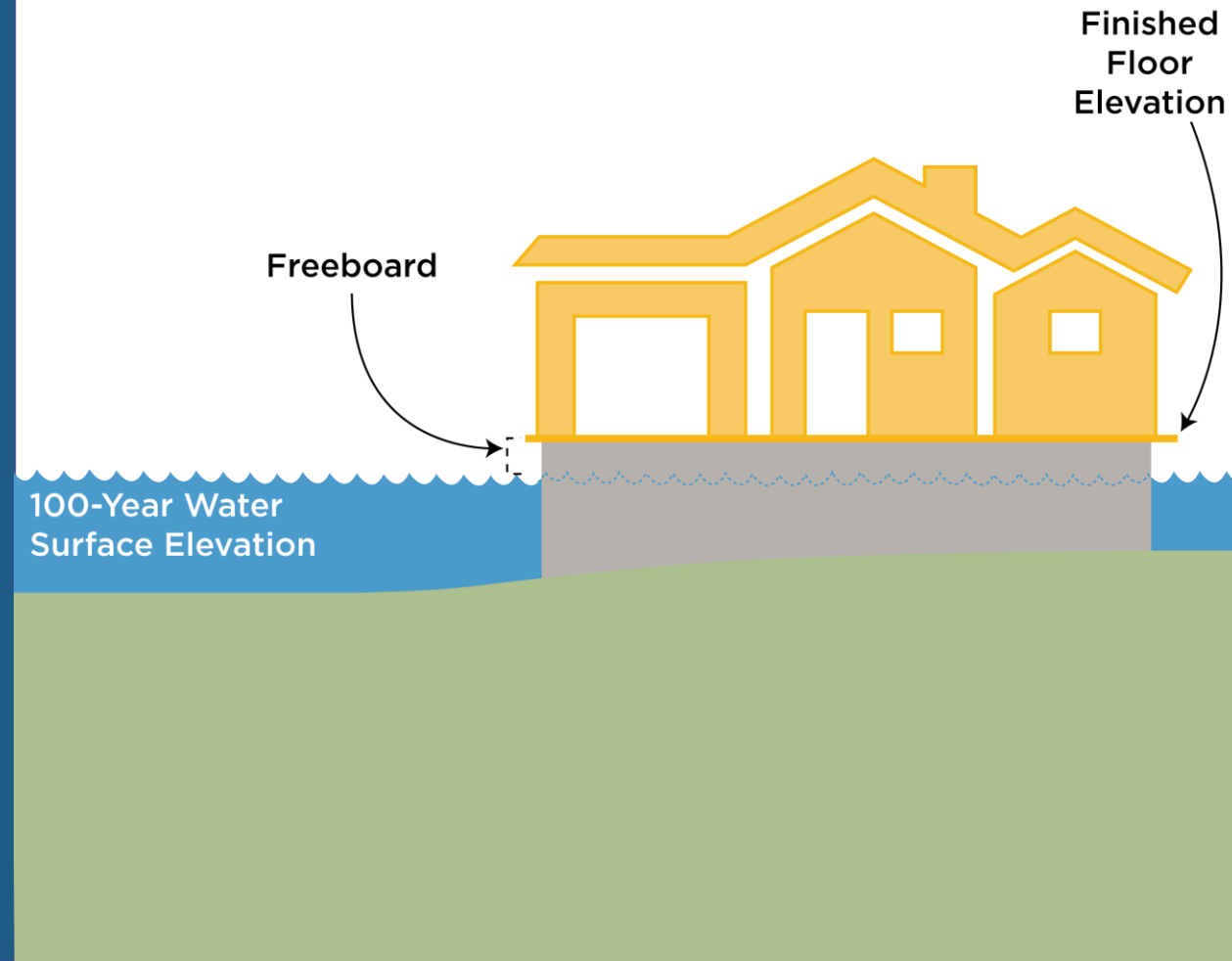
- Provide uniform regulations along Colorado River
- Colorado River flooding is not flash flooding like rest of City

## Increase the freeboard requirement

Increase the minimum height between a building's finished floor and the 100-year floodplain from 1 ft to 2 ft

### Purpose

- Freeboard is the single-most effective means for reducing flood risk to a building in the floodplain
- Reduce flood insurance premiums





## Who Have We Talked To?

Contacted more than 2,500 people at 88 different meetings

Public meetings

24,000 postcards sent to residents in the floodplain

Neighborhood groups

Environmental Community

Professional Associations

Development Organizations

Boards and Commissions

# Who Have We Talked To?

## Internal Departments

- Development Services Department
- Parks and Recreation
- Neighborhood Housing and Community Development
- Corridor Planning Office
- Law
- Public Works Department
- Austin Transportation Department
- Austin Water
- Sustainability
- Office of Real Estate Services
- Equity Office
- Travis County



# What We Heard and How We Responded

Timing gap between code amendments and DCM rules

- Eliminated gap – DCM draft rules are released

Building height limitations with Subchapter F

- Increased allowable building height by 2 feet

Losing some entitlements of approved residential subdivisions

- Safe access compliance determined at time of prelim. plan or plat

Drainage infrastructure challenges for phased developments

- Draft DCM rules establish modified criteria for phased developments

## Step 2 Drainage Criteria Manual revisions

- Atlas 14 updates rainfall rates that are used to determine:
  - Floodplain location
  - Size of storm drain pipes, inlets, and ditches
  - Detention pond size
- Rules making process
  - Draft DCM released in August
  - Stakeholder input







## Step 3 Flood Risk Evaluation

Update floodplain studies citywide

- Process to take 2 - 3 years
- Once complete, will provide data to FEMA to update flood insurance maps

Evaluate impacts to existing infrastructure

- Floodwalls
- Channels





# ATLAS 14: AUSTIN'S NEW UNDERSTANDING OF FLOOD RISK



## Atlas 14 – Summary of Recommended Code Changes

This document provides a summary of the proposed Atlas 14 related code amendments in order of appearance in the draft ordinance (dated August 14, 2019). Items that are highlighted are revisions from the first draft of the ordinance posted in December 2018.

### Parts 1 and 2 – City Code Section 25-2, Subchapter F (sections 2.2 and 3.4.2)

These sections revise the determination of the maximum building height for a building that is subject to Subchapter F and is in the 100-year floodplain. The maximum building height for a building in the 100-year floodplain increases from 32 feet to 35 feet as measured from natural grade.

### Parts 3 and 4 – 25-7-2 (*Definitions*)

- Add a definition of “Atlas 14,” which is referenced in subsequent sections.
- Revise the definitions of “100-year floodplain” and “25-year floodplain” to refer to new code sections that describe how the floodplain areas are determined (see Part 6).

### Part 5 – existing City Code Section 25-7-6, renumbered to 25-7-8 (*Computation of Stormwater Runoff*)

- Clarify that the calculation of the 500-year floodplain is based on the existing impervious cover in a watershed or drainage area, rather than the maximum amount of impervious cover allowed under zoning or watershed regulations.

### Part 6 – new City Code Section 25-7-6 (*Determination of the 100-Year Floodplain*)

- Revise the methodology for determining the 100-year floodplain to reflect the Atlas 14 rainfall data. This code amendment provides three options for determining the 100-year floodplain in the interim period until floodplain studies have been updated by the city. An applicant can use (1) the Atlas 14 data to calculate the 100-year floodplain under fully developed conditions; (2) use the current FEMA 500-year floodplain; or (3) use the current 500-year rainfall data to determine the limits of the floodplain. The exception to this methodology is the floodplain of the Colorado River; the code amendment specifies that the 100-year regulatory floodplain for the Colorado River remains the same (i.e., the current 100-year floodplain).

### New City Code Section 25-7-7 (*Determination of the 25-Year Floodplain*)

- Revise the methodology for determining the 25-year floodplain to reflect Atlas 14 data. This amendment provides two options for determining the 25-year floodplain. An applicant can either use (1) the Atlas 14 data to calculate the 25-year floodplain under fully developed conditions; or (2) use the current 100-year floodplain. The exception to this methodology is the floodplain of the Colorado River; the code amendment specifies that the 25-year regulatory floodplain for the Colorado River remains the same (i.e., the current 25-year floodplain).

**Part 7 – City Code Section 25-7-93 (*General Exceptions*)**

- Subsection (A)(2) is revised to remove an existing exception and create a new exception for constructing a residential building within the 100-year floodplain. The existing exception allows for the construction of a single-family or duplex residential building within the 100-year floodplain if the lot was platted before September 25, 1983. This provision is removed and replaced with a broader redevelopment exception that allows a new residential building to encroach within the 100-year floodplain if it is replacing an existing legally constructed residential building and does not increase the number of dwelling units on the property – regardless of plat date. The previous language under this section specified that it applies only single-family buildings. This has been revised such that it applies to all residential uses.
- Subsection (A)(4) is revised to expand the existing exception for development within the 100-year floodplain of Lady Bird Lake or the Colorado River to also apply to Lake Austin and Lake Travis.
- Subsection (B) is revised to clarify that development approved under the listed exceptions must meet specific criteria. Current code lists two criteria under this section: floodproofing and no adverse flooding impact. This amendment includes those two criteria and adds two additional criteria: compensation for floodplain volume and freeboard. The compensation for floodplain volume criterion is currently part of the no adverse flooding impact criterion and is added here for emphasis. The freeboard criterion is also part of the current code. However, the freeboard requirement is being increased from one foot to two feet.

**Part 8 – City Code Section 25-7-95 (*Requirements for Parking Areas*)**

- This section is revised to allow staff to have the administrative authority to approve parking areas in the 25-year or 100-year floodplains that are accessory to buildings that are approved under the exemptions in sections 25-7-93 and 25-7-96.

**Part 9 – City Code Section 25-7-96 (*Requirements in the 25-Year Floodplain*)**

- Subsection (A) is reworded for clarity.
- Subsection (B)(2) is revised to establish an equivalent redevelopment exception for residential development within the 25-year floodplain (see the description of Part 7, above).
- Subsection (C) is revised to clarify that development approved under the listed exceptions must meet specific criteria, as explained above in Part 7, subsection (B).

**Part 10 – City Code Section 25-8-1 (*Definitions*)**

- The definition of “floodplain modification” is revised to refer to the new section on determining the 100-year floodplain (Section 25-7-6).

**Part 11 – City Code Section 25-8-92 (*Critical Water Quality Zones Established*)**

- Subsections (A), (C), and (F) regarding critical water quality zone boundaries are revised to refer to the new section on determining the 100-year floodplain (Section 25-7-6).

**Part 12 – City Code Section 25-8-121 (*Environmental Resource Inventory Requirement*)**



- Subsection (A) is revised to remove floodplains from the list of property characteristics that require preparation of an environmental resource inventory.

Part 13 – Subsection 202.1 (*Amended Definitions*) of City Code Section 25-12-3 (*Local Amendments to the Building Code*)

- The definitions of “base flood,” “design flood,” “flood hazard area,” and “floodway” are amended to be consistent with the new methodology for determining the 100-year and 25-year floodplains.

Part 14 – Subsection 1612.3 (*Establishment of Flood Hazard Areas*) of City Code Section 25-12-3 (*Local Amendments to the Building Code*)

- Subsection 1 is being revised at the request of FEMA to ensure that the current Flood Insurance Studies and Flood Insurance Rate Maps are referenced.
- Subsection 2 is revised to clarify that the establishment of flood hazard areas is linked back to the definitions of 100-year floodplain and 25-year floodplain.

Part 15 – Subsection 1612.4.1 (*Freeboard*) of City Code Section 25-12-3 (*Local Amendments to the Building Code*)

- The minimum freeboard requirement for buildings in the floodplain is increased from one foot to two feet. This means that the finished floor elevation of the building must be at least two feet above the 100-year floodplain.

Part 16 – Subsection G103.3 (*Determination of Design Flood Elevations*) of Appendix G (*Flood Resistant Construction*) of City Code Section 25-12-3 (*Local Amendments to the Building Code*)

- Subsection 2 is revised to clarify that the determination of design flood elevations is linked back to the definition of 100-year floodplain.

Part 17 – Subsection 320.2 (*Establishment of Flood Hazard Areas*) of City Code Section 25-12-133 (*Local Amendments to the 2015 Uniform Mechanical Code*)

- Subsection 2 is revised to clarify that the establishment of flood hazard areas is linked back to the definitions of 100-year and 25-year floodplain.

Part 18 – Subsection 321.8 (*Establishment of Flood Hazard Areas*) of City Code Section 25-12-153 (*Local Amendments to the Uniform Plumbing Code*)

- Subsection 2 is revised to clarify that the establishment of flood hazard areas is linked back to the definitions of 100-year floodplain and 25-year floodplain.

Parts 19, 20, 21, 22 – various sections of City Code Section 25-12-243 (*Local Amendments to the International Residential Code*)

- Various definitions are revised to be consistent with the revised definitions and new methods of determining the 100-year floodplain and 25-year floodplain.

Part 23 – Subsection R322.2.1 (*Elevation requirements*) of the City Code Section 25-12-243 (*Local Amendments to the International Residential Code*)

- The minimum freeboard requirement for residential buildings in the floodplain is increased from one foot to two feet. This means that the finished floor elevation of the building must be at least two feet above the 100-year floodplain.

Part 24 – Subsection R322.2.6 of City Code Section 25-12-3 (*Local Amendments to the International Residential Code*)

- This section states that the means of egress criteria for residential building permits is determined accordingly:
  - *For single-family condo regime buildings:* Means of egress is determined at the time of site plan approval if the site plan was approved between December 1, 2017 and the effective date of this ordinance
  - *For single-family buildings:* Means of egress is determined accordingly:
    - at the time of preliminary plan if the preliminary plan was submitted for approval between December 1, 2014 and the effective date of this ordinance; or
    - at the time of final plat if the final plat was approved between December 1, 2017 and the effective date of this ordinance.
  - Means of egress for residential buildings for all other situations not described above is determined at the time of building permit application.

Parts 25, 26, 27, 28, 29, 30, and 31 – various sections of City Code Chapter 30-4 (*Drainage*) and the 30-5 (*Environment*)

- Corresponding sections of Chapters 30-4 and 30-5 are amended to match the proposed changes to Chapters 25-7 and 25-8.

Part 32 – This section refers to the effective date of the ordinance, which will be determined by the City Council.

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**ORDINANCE NO.**

**AN ORDINANCE AMENDING CITY CODE CHAPTERS 25-2, 25-7, 25-8, 25-12, 30-4 AND 30-5 RELATING TO REGULATION OF DEVELOPMENT WITHIN THE 25-YEAR AND 100-YEAR FLOODPLAINS.**

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:**

**PART 1.** Section 2.2 (*Building Height*) of City Code Chapter 25-2, Subchapter F, is amended to read as follows:

**§ 2.2. - BUILDING HEIGHT.**

Except where these regulations are superseded, the maximum building height for development subject to this Subchapter is:

- A. 32 feet for development located outside the 100-year floodplain;  
and
- B. 35 feet for development located in the 100-year floodplain. [is 32 feet.]

Section 25-2-531 (*Height Limit Exceptions*) does not apply to development subject to this Subchapter, except for a chimney, vent, antenna, or energy conservation or production equipment or feature not designed for occupancy. Building height shall be measured under the requirements defined in Section 3.4.

**PART 2.** Subsection 3.4.2 of City Code Chapter 25-2, Subchapter F, Section 3.4 (*Height*) is amended to read as follows:

**3.4.2.** The grade used in the measurement of height for a building or setback plane shall be the lower of natural grade or finished grade, except height shall be measured from natural [~~finished~~] grade if the site is located in the 100-year floodplain. [∴

A. ~~—The site's grade is modified to elevate it out of the 100-year floodplain; or~~

B. ~~—The site is located on the approximately 698.7 acres of land known as the Mueller Planned Unit Development, which was zoned as a planned unit development (PUD) district by Ordinance Number 040826-61.]~~



**PART 3.** City Code Section 25-7-2 (*Definitions*) is amended to add a definition of “Atlas 14” and to renumber the other definitions in this section accordingly:

- (2) ATLAS 14 means the National Oceanic and Atmospheric Administration’s Precipitation-Frequency Atlas 14 of the United States, Volume 11, Version 2.0: Texas.

**PART 4.** City Code Section 25-7-2 (*Definitions*) is amended to change the definitions of “100-Year Floodplain” and “25-Year Floodplain” to read as follows:

- (10) 100-YEAR FLOODPLAIN means an area within a floodplain subject to a one percent or greater chance of flooding in any year as calculated in accordance with Section 25-7-6 (*Determination of the 100-Year Floodplain*) ~~[the 100-year floodplain calculated under fully developed conditions as prescribed by the Drainage Criteria Manual]~~.
- (11) 25-YEAR FLOODPLAIN means an area within a floodplain subject to a four percent or greater chance of flooding in any year as calculated in accordance with Section 25-7-7 (*Determination of the 25-Year Floodplain*) ~~[the 25-year floodplain calculated under fully developed conditions as prescribed by the Drainage Criteria Manual]~~.

**PART 5.** City Code Section 25-7-6 (*Computation of Stormwater Runoff*) is amended to read as follows:

**§ 25-7-~~8~~[6] - COMPUTATION OF STORMWATER RUNOFF.**

(A) Except as provided in Subsection (B), stormwater ~~[Stormwater]~~ runoff shall be computed on the basis of a fully developed contributing drainage area or watershed as determined under the Drainage Criteria Manual.

(B) When determining the runoff generated from the 500-year flood for the purpose of determining the 100-year floodplain under Subsection (B) of Section 25-7-6 (*Determination of the 100-Year Floodplain*), stormwater runoff shall be computed on the basis of an existing developed contributing drainage area or watershed.

**PART 6.** City Code Chapter 25-7 (*Drainage*) is amended to add a new Section 25-7-6 and 25-7-7 to read as follows:

**§ 25-7-6 DETERMINATION OF THE 100-YEAR FLOODPLAIN.**

1 For purposes of this chapter, the 100-year floodplain shall be:

- 2 (A) For areas amended to incorporate Atlas 14 data, the 100-year  
3 floodplain calculated under fully developed conditions as  
4 prescribed by the Drainage Criteria Manual as amended to  
5 incorporate Atlas 14 data;
- 6 (B) For areas not yet amended to incorporate Atlas 14 data, the 500-  
7 year floodplain either as depicted on the FEMA Flood Insurance  
8 Rate Map as of January 6, 2016, as subsequently revised, or as  
9 calculated under existing conditions as prescribed by the Drainage  
10 Criteria Manual using data predating Atlas 14; or
- 11 (C) For the Colorado River, the 100-year floodplain as depicted on the  
12 FEMA Flood Insurance Rate Map dated January 6, 2016, or as  
13 subsequently revised.

14 **§ 25-7-7 DETERMINATION OF THE 25-YEAR FLOODPLAIN.**

15 For purposes of this chapter, the 25-year floodplain shall be:

- 16 (A) For areas amended to incorporate Atlas 14 data, the 25-year  
17 floodplain calculated under fully developed conditions as  
18 prescribed by the Drainage Criteria Manual as amended to  
19 incorporate Atlas 14 data;
- 20 (B) For areas not yet amended to consider Atlas 14 data, the 100-year  
21 floodplain calculated under fully developed conditions as  
22 prescribed by the Drainage Criteria Manual using data predating  
23 Atlas 14; or
- 24 (C) For the Colorado River, the 25-year floodplain as calculated under  
25 exiting conditions as prescribed by the Drainage Criteria Manual  
26 using data predating Atlas 14.

27 **PART 7.** City Code Section 25-7-93 (*General Exceptions*) is amended to read as  
28 follows:

29 **§ 25-7-93 - GENERAL EXCEPTIONS.**

1 (A) A site plan with a proposed building or parking area that encroaches on  
2 the 100-year floodplain may be approved if the encroachment is:

3 (1) a parking area that is smaller than 5,000 square feet or an  
4 unoccupied structure that has an area of less than 1,000 square feet,  
5 and the director determines that the proposed development:

6 (a) will not have an adverse effect on the 100-year floodplain or  
7 surrounding properties; and

8 (b) otherwise complies with the requirements of this title;

9 (2) a new building for residential use that replaces an existing legally  
10 constructed building for residential use on the same property and  
11 that does not increase the number of legal dwelling units on the  
12 property; [a single-family or duplex residential structure in a  
13 subdivision;

14 (a) ~~recorded before September 25, 1983; and~~

15 (b) ~~in which only one residential structure is built on a single~~  
16 ~~lot;]~~

17 (3) a building authorized by a waterway development permit issued  
18 under Chapter 9-10 before September 25, 1983; or

19 (4) a building in the 100-year floodplain of:

20 (a) Lady Bird Lake; [or]

21 (b) the Colorado River downstream from Longhorn Dam;

22 (c) Lake Austin; or

23 (d) Lake Travis.

24 (B) To be approved under this section, [A] development [application that may  
25 be approved under this section] must:

26 (1) be no lower than two feet above the 100-year floodplain, as  
27 measured from the lowest floor elevation of any proposed building



[~~comply with the flood proofing requirements of Chapter 25-12, Article 1 (*Building Code*); and~~];

(2) comply with the requirements in Chapter 25-12, Article 1, Section 25-12-3 Appendix G (*Flood Resistant Construction*) and Section 1612 (*Flood Loads*);

(3) compensate for the floodplain volume displaced by the development; and

(4) result in no additional adverse flooding impact on other properties, as determined by the director.

**PART 8.** City Code Section 25-7-95 (*Requirements for Parking Areas*) is amended to read as follows:

**§ 25-7-95 - REQUIREMENTS FOR PARKING AREAS.**

(A) This section establishes requirements that apply to the development of a parking area.

(B) A development application with a proposed parking area that encroaches on the 100-year floodplain may be approved if:

(1) the level of water detention or waterflow in the parking area during the 100-year storm does not exceed:

(a) an average depth of eight inches; or

(b) a maximum depth of 12 inches at any point; and

(2) appropriate signs, approved by the director, are posted to notify persons that the water detention or waterflow in the parking lot may exceed a depth of eight inches.

(C) Notwithstanding the requirements of Subsection (B), a development application with a proposed parking area that encroaches on the 25-year floodplain or the 100-year floodplain may be approved if the parking area is[÷] accessory to a building approved under 25-7-93 (*General Exceptions*) or 25-7-96 (*Requirements in the 25-Year Floodplain*).

1           ~~[(1) accessory to a single-family or duplex residential structure on a lot~~  
2           ~~in a subdivision recorded before September 25, 1983;~~

3           ~~(2) authorized by a waterway development permit issued under Chapter~~  
4           ~~9-10 before September 25, 1983; or~~

5           ~~(3) in the 100-year floodplain of:~~

6                     ~~(a) Lady Bird Lake; or~~

7                     ~~(b) the Colorado River downstream from Longhorn Dam.]~~

8   **PART 9.** City Code Section 25-7-96 (*Requirements in the 25-Year Floodplain*) is  
9   amended to read as follows:

10   **§ 25-7-96 - REQUIREMENTS IN THE 25-YEAR FLOODPLAIN.**

11           (A)   The [This section establishes] requirements of this section [that] apply to  
12           development in the 25-year floodplain.

13           (B)   A development application with a proposed building or parking area that is  
14           located on parkland, a golf course, or other public or recreational land and  
15           that encroaches on the 25-year floodplain may be approved if:

16                     ~~[(1) the building or parking area is located on parkland, a golf course, or~~  
17                     ~~other public or recreational land;]~~

18                     (1)[(2)]   the building, if any, is:

19                             ~~(a)[(i)]~~   a restroom or bath facility, concession stand, tool shed, or  
20                             pump house, wit

21                             h an area of less than 1,000 square feet; or

22                             ~~(b)[(ii)]~~   a dock that is located in the 25-year floodplain of Lady  
23                             Bird Lake, Lake Walter E. Long, or Lake Austin and  
24                             constructed, or proposed to be constructed, in compliance with  
25                             the regulations of this title; and

26                     (2)[(3)]   the parking area, if any, is smaller than 5,000 square feet.~~.]~~

27                     ~~[(4) the director determines that the proposed development:~~

1 (a) ~~will not result in additional adverse flooding impact on other~~  
2 ~~properties; and~~

3 (b) ~~otherwise complies with the requirements of this title.]~~

4 (C) A development application for a proposed new building for residential use  
5 that replaces an existing legally constructed building for residential use may  
6 be approved if the building is:

7 (1) on the same property; and

8 (2) not increasing the number of legal dwelling units on the property.

9 (D)[(C)] To be approved under this section, [A] development  
10 [application approved under this section] must:

11 (1) be no lower than two feet above the 100-year floodplain, as  
12 measured from the lowest floor elevation of any proposed  
13 building;

14 (2) comply with the requirements in Chapter 25-12, Article 1,  
15 Section 25-12-3 Appendix G (*Flood Resistant Construction*)  
16 and Section 1612 (*Flood Loads*);

17 (3) compensate for the floodplain volume displaced by the  
18 development;

19 (4) result in no additional adverse flooding impact on other  
20 properties, as determined by the director; and

21 (5) otherwise comply with the requirements of this title, as  
22 determined by the director.

23 ~~[comply with the flood proofing requirements of Chapter 25-12,~~  
24 ~~Article 1 (Building Code).]~~

25 **PART 10.** City Code Section 25-8-1 (*Definitions*) is amended to change the definition  
26 of “floodplain modification” to read as follows:

27 (10) FLOODPLAIN MODIFICATION means development that results in any  
28 vertical or horizontal change in the cross section of the 100-year floodplain



1 as determined under Section 25-7-6 (*Determination of the 100-Year*  
2 *Floodplain*) [~~calculated under fully developed conditions as prescribed by~~  
3 ~~the Drainage Criteria Manual~~].  
4

5 **PART 11.** Subsections (A), (C), and (F) of City Code Section 25-8-92 (*Critical Water*  
6 *Quality Zones Established*) are amended to read as follows:

7 (A) In the water supply rural watersheds, water supply suburban watersheds,  
8 and Barton Springs Zone, a critical water quality zone is established along  
9 each waterway classified under Section 25-8-91 (*Waterway*  
10 *Classifications*).

11 (1) The boundaries of a critical water quality zone coincide with the  
12 boundaries of the 100-year floodplain as determined under Section  
13 25-7-6 (*Determination of the 100-Year Floodplain*), [~~calculated~~  
14 ~~under fully developed conditions as prescribed by the Drainage~~  
15 ~~Criteria Manual~~] except:

16 (a) for a minor waterway, the boundaries of the critical water  
17 quality zone are located not less than 50 feet and not more than  
18 100 feet from the centerline of the waterway;

19 (b) for an intermediate waterway, the boundaries of the critical  
20 water quality zone are located not less than 100 feet and not  
21 more than 200 feet from the centerline of the waterway;

22 (c) for a major waterway, the boundaries of the critical water  
23 quality zone are located not less than 200 feet and not more  
24 than 400 feet from the centerline of the waterway; and

25 (d) for the main channel of Barton Creek, the boundaries of the  
26 critical water quality zone are located 400 feet from the  
27 centerline of the creek.

28 (2) Notwithstanding the provisions of Subsections (A)(1)(a), (b), and (c),  
29 a critical water quality zone does not apply to a previously modified  
30 drainage feature serving a railroad or public roadway right-of-way  
31 that does not possess any natural and traditional character and cannot

1 reasonably be restored to a natural condition, as prescribed in the  
2 Environmental Criteria Manual.

3 (C) In an urban watershed, a critical water quality zone is established along  
4 each waterway with a drainage area of at least 64 acres. This does not apply  
5 in the area bounded by IH-35, Riverside Drive, Barton Springs Road,  
6 Lamar Boulevard, and 15th Street.

7 (1) The boundaries of the critical water quality zone coincide with the  
8 boundaries of the 100-year floodplain as determined under Section  
9 25-7-6 (*Determination of the 100-Year Floodplain*), ~~[calculated~~  
10 ~~under fully developed conditions as prescribed by the Drainage~~  
11 ~~Criteria Manual;]~~ provided that the boundary is not less than 50 feet  
12 and not more than 400 feet from the centerline of the waterway.

13 (2) Notwithstanding the provisions of Subsection (C)(1), a critical water  
14 quality zone does not apply to a previously modified drainage feature  
15 serving a railroad or public roadway right-of-way that does not  
16 possess any natural and traditional character and cannot reasonably  
17 be restored to a natural condition.

18 (F) Critical water quality zones are established along and parallel to the  
19 shorelines of the Colorado River downstream of Lady Bird Lake.

20 (1) The shoreline boundary of a critical water quality zone coincides with  
21 the river's ordinary high water mark, as defined by Code of Federal  
22 Regulations Title 33, Section 328.3 (*Definitions*).

23 (2) The inland boundary of a critical water quality zone coincides with  
24 the boundary of the 100-year floodplain as determined under Section  
25 25-7-6 (*Determination of the 100-Year Floodplain*) ~~[delineated by~~  
26 ~~the Federal Emergency Management Agency]~~, except that the width  
27 of the critical water quality zone, measured horizontally inland, is  
28 not less than 200 feet and not more than 400 feet.

29 **PART 12.** Subsection (A) of City Code Section 25-8-121 (*Environmental Resource*  
30 *Inventory Requirement*) is amended to read as follows:

31 (A) An applicant shall file an environmental resource inventory with the  
32 director for proposed development located on a tract:

- (1) within the Edwards Aquifer recharge or contributing zone;
- (2) within the Drinking Water Protection Zone;
- (3) containing a water quality transition zone;
- (4) containing a critical water quality zone; or
- (5) ~~[containing a floodplain; or~~
- (6)] with a gradient of more than 15 percent.

**PART 13.** Subsection 202.1 (*Amended Definitions*) of City Code Section 25-12-3 (*Local Amendments to the Building Code*) is amended to delete and replace the definitions of “base flood”, “design flood”, “flood hazard area”, and “floodway” with new definitions to read as follows:

**BASE FLOOD.** A flood that has the following characteristics:

1. For areas amended to incorporate Atlas 14 data, a flood that has a one percent chance of being equaled or exceeded in any given year (100-year flood) calculated under fully developed conditions as prescribed by the Drainage Criteria Manual as amended to incorporate Atlas 14 data;
2. For areas not yet amended to incorporate Atlas 14 data, a flood that has a 0.2 percent chance of being equaled or exceeded in any given year (500-year flood) calculated under the conditions underlying the FEMA Flood Insurance Rate Map as of January 6, 2016, as subsequently revised, or as calculated under existing conditions as prescribed by the Drainage Criteria Manual using data predating Atlas 14; or
3. For the Colorado River, a flood that has a one percent chance of being equaled or exceeded in any given year (100-year flood) calculated under the conditions underlying the FEMA Flood Insurance Rate Map dated January 6, 2016, or as subsequently revised.

**DESIGN FLOOD.** A flood that has the following characteristics:

1. For areas amended to incorporate Atlas 14 data, a flood associated with an area of a floodplain subject to a one percent or greater chance of being flooded in any year (100-year flood) based on projected full



development in accordance with the City of Austin Drainage Criteria Manual as amended to incorporate Atlas 14 data;

2. For areas not yet amended to incorporate Atlas 14 data, a flood associated with an area of a floodplain subject to a 0.2 percent or greater chance of being flooded in any year (500-year flood) calculated under the conditions underlying the FEMA Flood Insurance Rate Map as of January 6, 2016, as subsequently revised, or as calculated under existing conditions as prescribed by the Drainage Criteria Manual using data predating Atlas 14; or
3. For the Colorado River, a flood associated with an area of a floodplain subject to a one percent or greater chance of being flooded in any year (100-year flood) as depicted on the FEMA Flood Insurance Rate Map dated January 6, 2016, or as subsequently revised.

**FLOOD HAZARD AREA.** An area that has the following characteristics:

1. For areas amended to incorporate Atlas 14 data, an area within a floodplain subject to a one percent or greater chance of being flooded in any year (100-year flood) based on projected full development in accordance with the City of Austin Drainage Criteria Manual as amended to incorporate Atlas 14 data;
2. For areas not yet amended to incorporate Atlas 14 data, an area of a floodplain subject to a 0.2 percent or greater chance of being flooded in any year (500-year flood) calculated under the conditions underlying the FEMA Flood Insurance Rate Map as of January 6, 2016, as subsequently revised, or as calculated under existing conditions as prescribed by the Drainage Criteria Manual using data predating Atlas 14; or
3. For the Colorado River, an area within a floodplain subject to a one percent or greater chance of being flooded in any year (100-year flood) as depicted on the FEMA Flood Insurance Rate Map dated January 6, 2016, or as subsequently revised.

1 **FLOODWAY.** The channel of the river, creek, or other watercourse and  
2 the adjacent land areas that must be reserved in order to discharge the  
3 base flood without cumulatively increasing the water surface elevation  
4 more than a designated height. An area that has the following  
5 characteristics:

- 6 1. For the Colorado River, an area with a floodplain subject to a four  
7 percent or greater chance of flooding in any year (25-year flood)  
8 based on existing developed conditions as prescribed by the  
9 Drainage Criteria Manual using data predating Atlas 14; or
- 10 2. For all other rivers, creeks, and watercourses in areas amended to  
11 incorporate Atlas 14 data, an area with a four percent or greater  
12 chance of flooding in any year (25-year flood) based on a projected  
13 full development in accordance with the City of Austin Drainage  
14 Criteria Manual as amended to incorporate Atlas 14 data.
- 15 3. For all other rivers, creeks, and watercourses in areas not yet  
16 amended to incorporate Atlas 14 data, an area with a one percent or  
17 greater chance of flooding in any year (100-year flood) based on a  
18 projected full development in accordance with the City of Austin  
19 Drainage Criteria Manual using data predating Atlas 14.

20 **PART 14.** Subsection 1612.3 (*Establishment of Flood Hazard Areas*) of City  
21 Code Section 25-12-3 (*Local Amendments to the Building Code*) is amended to  
22 read as follows:

23 **1612.3 Establishment of flood hazard areas.** Flood hazard areas are:

- 24 1. the areas of special flood hazard areas identified by the Federal  
25 Emergency Management Agency in the current [a] scientific and  
26 engineering report entitled, "The Flood Insurance Study (FIS) for  
27 Williamson County, Texas and Incorporated Areas" dated  
28 December 20, 2019, with accompanying Flood Insurance Rate  
29 Maps (FIRM) dated December 20, 2019, the current scientific and  
30 engineering report entitled "The Flood Insurance Study for Travis  
31 County, Texas and Incorporated Areas" dated January 6, 2016, with  
32 accompanying Flood Insurance Rate Maps dated January 6, 2016,

1 and any [~~"The Flood Insurance Study for Austin, Texas," dated~~  
2 ~~January 6, 2016, with accompanying Flood Insurance Rate Maps~~  
3 ~~and Flood Boundary Floodway Maps (FIRM and FBFM) and~~  
4 ~~related supporting data, along with any amendments or]~~ revisions  
5 [~~thereto,~~] are [hereby] adopted by reference and declared to be a  
6 part of this section; and

- 7 2. the 100-year and 25-year floodplains as defined [~~based on projected~~  
8 ~~full development as specified]~~ in the Austin City Code and  
9 Drainage Criteria Manual are adopted by reference and declared to  
10 be part of this section.

11 **PART 15.** Subsection 1612.4.1 (*Freeboard*) of City Code Section 25-12-3 (*Local*  
12 *Amendments to the Building Code*) is amended to read as follows:

13 **1612.4.1 Freeboard.** A minimum freeboard of two feet [~~one foot~~] shall be added  
14 where the design flood elevation or other elevation requirements are specified,  
15 unless otherwise specified in Title 25 (*Land Development*).

16 **PART 16.** Subsection G103.3 (*Determination of Design Flood Elevations*) of Appendix  
17 G (*Flood Resistant Construction*) of City Code Section 25-12-3 (*Local Amendments to*  
18 *the Building Code*) is amended to read as follows:

19 **G103.3 Determination of design flood elevations.** If design flood elevations are  
20 not specified, the building official is authorized to require the applicant to:

- 21 1. Obtain, review and reasonably utilize data available from a federal,  
22 state or other source; or
- 23 2. Determine the design flood elevation in accordance with the 100-  
24 year floodplain as defined in the Austin City Code [~~based on~~  
25 ~~projected full development in accordance with the City of Austin~~  
26 ~~Drainage Criteria Manual]~~. Such analyses shall be performed and  
27 sealed by a Professional Engineer licensed by the State of Texas.  
28 Studies, analyses and computations shall be submitted in sufficient  
29 detail to allow review and approval by the building official. The  
30 accuracy of data submitted for such determination shall be the  
31 responsibility of the applicant.



1 **PART 17.** Subsection 320.2 (*Establishment of Flood Hazard Areas*) of City Code  
2 Section 25-12-133 (*Local Amendments to the 2015 Uniform Mechanical Code*) is  
3 amended to read as follows:

4 **320.2 Establishment of flood hazard areas.** A flood hazard area is:

- 5 1. the areas of special flood hazard areas identified by the Federal  
6 Emergency Management Agency in the current [a] scientific and  
7 engineering report entitled, "The Flood Insurance Study (FIS) for  
8 Williamson County, Texas and Incorporated Areas" dated December  
9 20, 2019, with accompanying Flood Insurance Rate Maps (FIRM)  
10 dated December 20, 2019, the current scientific and engineering  
11 report entitled "The Flood Insurance Study for Travis County, Texas  
12 and Incorporated Areas" dated January 6, 2016, with accompanying  
13 Flood Insurance Rate Maps dated January 6, 2016, and any ["The  
14 Flood Insurance Study for Austin, Texas," dated January 6, 2016,  
15 with accompanying Flood Insurance Rate Maps and Flood  
16 Boundary Floodway Maps (FIRM and FBFM) and related  
17 supporting data, along with any amendments or] revisions [thereto,]  
18 are [hereby] adopted by reference and declared to be a part of this  
19 section; or
- 20 2. a 100-year or 25-year floodplain as defined [~~based on projected full~~  
21 ~~development as specified~~] in the Austin City Code [~~and Drainage~~  
22 ~~Criteria Manual~~].

23 **PART 18.** Subsection 321.8 (*Establishment of Flood Hazard Areas*) of City Code  
24 Section 25-12-153 (*Local Amendments to the Uniform Plumbing Code*) is  
25 amended to read as follows:

26 **321.8 Establishment of flood hazard areas.** The City establishes a flood hazard area  
27 that includes the following:

- 28 1. Areas of special flood [~~flood~~] hazard areas identified by the Federal  
29 Emergency Management Agency in the current [a] scientific and  
30 engineering report entitled, "The Flood Insurance Study (FIS) for  
31 Williamson County, Texas and Incorporated Areas" dated December 20,  
32 2019, with accompanying Flood Insurance Rate Maps (FIRM) dated  
33 December 20, 2019, the current scientific and engineering report entitled

1       "The Flood Insurance Study for Travis County, Texas and Incorporated  
2       Areas" dated January 6, 2016, with accompanying Flood Insurance Rate  
3       Maps dated January 6, 2016, and any ["The Flood Insurance Study for  
4       Austin, Texas," dated January 6, 2016, with accompanying Flood Insurance  
5       Rate Maps and Flood Boundary Floodway Maps (FIRM and FBFM) and  
6       related supporting data, along with any amendments or] revisions [thereto,]  
7       are [hereby] adopted by reference and declared to be a part of this section;  
8       and

- 9       2.     The 100-year and 25-year floodplains as defined in the Austin City Code  
10       [~~based on projected full developments as specified in the City Code and~~  
11       ~~Drainage Criteria Manual~~] are adopted by reference and declared to be part  
12       of this section.

13  
14       **PART 19.** Subsection R202 (*Definitions*) of City Code Section 25-12-243 (*Local*  
15       *Amendments to the International Residential Code*) is amended to delete and replace the  
16       definitions of "25-year flood plain", "base flood", "design flood", "flood hazard area",  
17       and "floodway" to read as follows:

18       **25-YEAR FLOODPLAIN** means an area that has the following  
19       characteristics:

- 20       (A)    For areas amended to incorporate Atlas 14 data, the 25-year  
21       floodplain calculated under fully developed conditions as  
22       prescribed by the Drainage Criteria Manual as amended to  
23       incorporate Atlas 14 data;
- 24       (B)    For areas not yet amended to consider Atlas 14 data, the 100-year  
25       floodplain calculated under fully developed conditions as  
26       prescribed by the Drainage Criteria Manual using data predating  
27       Atlas 14; or
- 28       (C)    For the Colorado River, the 25-year floodplain as calculated under  
29       existing conditions as prescribed by the Drainage Criteria Manual  
30       using data predating Atlas 14.

31       **BASE FLOOD** means a flood that has the following characteristics:

- 32       1.     For areas amended to incorporate Atlas 14 data, a flood that has a  
33       one percent chance of being equaled or exceeded in any given year  
34       (100-year flood) calculated under fully developed conditions as

1 prescribed by the Drainage Criteria Manual as amended to  
2 incorporate Atlas 14 data;

- 3 2. For areas not yet amended to incorporate Atlas 14 data, a flood that  
4 has a 0.2 percent chance of being equaled or exceeded in any given  
5 year (500-year flood) calculated under the conditions underlying  
6 the FEMA Flood Insurance Rate Map as of January 6, 2016, as  
7 subsequently revised, or as calculated under existing conditions as  
8 prescribed by the Drainage Criteria Manual using data predating  
9 Atlas 14; or
- 10 3. For the Colorado River, a flood that has a one percent chance of  
11 being equaled or exceeded in any given year (100-year flood)  
12 calculated under the conditions underlying the FEMA Flood  
13 Insurance Rate Map dated January 6, 2016, or as subsequently  
14 revised.

15 **DESIGN FLOOD** means a flood that has the following characteristics:

- 16 1. For areas amended to incorporate Atlas 14 data, the flood  
17 associated with an area of a floodplain subject to a one percent or  
18 greater chance of being flooded in any year (100-year flood) based  
19 on projected full development in accordance with the City of  
20 Austin Drainage Criteria Manual as amended to incorporate Atlas  
21 14 data;
- 22 2. For areas not yet amended to incorporate Atlas 14 data, the flood  
23 associated with an area of a floodplain subject to a 0.2 percent or  
24 greater chance of being flooded in any year (500-year flood)  
25 calculated under the conditions underlying the FEMA Flood  
26 Insurance Rate Map as of January 6, 2016, as subsequently revised,  
27 or as calculated under existing conditions as prescribed by the  
28 Drainage Criteria Manual using data predating Atlas 14; or
- 29 3. For the Colorado River, the flood associated with an area of a  
30 floodplain subject to a one percent or greater chance of being  
31 flooded in any year (100-year flood) as depicted on the FEMA  
32 Flood Insurance Rate Map dated January 6, 2016, or as  
33 subsequently revised.



**FLOOD HAZARD AREA** means an area that has the following characteristics:

1. For areas amended to incorporate Atlas 14 data, an area within a floodplain subject to a one percent or greater chance of being flooded in any year (100-year flood) based on projected full development in accordance with the City of Austin Drainage Criteria Manual as amended to incorporate Atlas 14 data;
2. For areas not yet amended to incorporate Atlas 14 data, an area within a floodplain subject to the 500-year floodplain either as depicted on the FEMA Flood Insurance Rate Map as of January 6, 2016, as subsequently revised, or as calculated under existing conditions as prescribed by the Drainage Criteria Manual using data predating Atlas 14; or
3. For the Colorado River, an area within a floodplain subject to a one percent or greater chance of being flooded in any year (100-year flood) as depicted on the FEMA Flood Insurance Rate Map dated January 6, 2016, or as subsequently revised.

**FLOODWAY** means the channel of the river, creek, or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. An area that has the following characteristics:

1. For the Colorado River, an area with a floodplain subject to a four percent or greater chance of flooding in any year (25-year flood) based on existing developed conditions as prescribed by the Drainage Criteria Manual using data predating Atlas 14;
2. For all other rivers, creeks, and watercourses in areas amended to incorporate Atlas 14 data, an area with a four percent or greater chance of flooding in any year (25-year flood) based on a projected full development in accordance with the City of Austin Drainage Criteria Manual as amended to incorporate Atlas 14 data; or
3. For all other rivers, creeks, and watercourses in areas not yet amended to incorporate Atlas 14 data, an area with a one percent or

greater chance of flooding in any year (100-year flood) based on a projected full development in accordance with the City of Austin Drainage Criteria Manual using data predating Atlas 14.

**PART 20.** Subsection R202 (*Definitions*) of City Code Section 25-12-243 (*Local Amendments to the International Residential Code*) is amended to add a new definition of “100-year flood plain” to read as follows:

**100-YEAR FLOOD PLAIN** means an area that has the following characteristics:

- (A) For areas amended to incorporate Atlas 14 data, the 100-year floodplain calculated under fully developed conditions as prescribed by the Drainage Criteria Manual as amended to incorporate Atlas 14 data;
- (B) For areas not yet amended to incorporate Atlas 14 data, the 500-year floodplain either as depicted on the FEMA Flood Insurance Rate Map as of January 6, 2016, as subsequently revised, or as calculated under existing conditions as prescribed by the Drainage Criteria Manual using data predating Atlas 14; or
- (C) For the Colorado River, the 100-year floodplain as depicted on the FEMA Flood Insurance Rate Map dated January 6, 2016, or as subsequently revised.

**PART 21.** Subsection R322.1.4 (*Establishing the Design Flood Elevation*) of City Code Section 25-12-243 (*Local Amendments to the International Residential Code*) is amended to read as follows:

**R322.1.4 Establishing the design flood elevation.** The design flood elevation defines areas prone to flooding and describes, at a minimum, the base flood elevation at the depth of peak elevation of flooding based upon: ~~[with the ultimate development of the watershed, which has a one percent (100-year flood) or greater chance of being equaled or exceeded in any given year.]~~

- 1. For areas amended to incorporate Atlas 14 data, the 100-year floodplain calculated under fully developed conditions in accordance with the City of Austin Drainage Criteria Manual as amended to incorporate Atlas 14 data;

2. For areas not yet amended to incorporate Atlas 14 data, the 500-year floodplain either as depicted on the FEMA Flood Insurance Rate Map as of January 6, 2016, as subsequently revised, or as calculated under existing conditions as prescribed by the Drainage Criteria Manual using data predating Atlas 14; or
3. For the Colorado River, the 100-year floodplain as depicted on the FEMA Flood Insurance Rate Map dated January 6, 2016, or as subsequently revised.

**PART 22.** Subsection R322.2 (*Establishment of Flood Hazard Areas [Including A Zones]*) of City Code Section 25-12-243 (*Local Amendments to the International Residential Code*) is amended to read as follows:

**R322.2 Establishment of flood hazard areas (including A Zones).** A flood hazard area is:

1. the areas of special flood hazard areas identified by the Federal Emergency Management Agency in the current [a] scientific and engineering report entitled, "The Flood Insurance Study (FIS) for Williamson County, Texas and Incorporated Areas" dated December 20, 2019, with accompanying Flood Insurance Rate Maps (FIRM) dated December 20, 2019, the current scientific and engineering report entitled "The Flood Insurance Study for Travis County, Texas and Incorporated Areas" dated January 6, 2016, with accompanying Flood Insurance Rate Maps dated January 6, 2016, and any ["The Flood Insurance Study for Austin, Texas," dated January 6, 2016, with accompanying Flood Insurance Rate Maps and Flood Boundary Floodway Maps (FIRM and FBFM) and related supporting data, along with any amendments or] revisions ~~[thereto,]~~ are ~~[hereby]~~ adopted by reference and declared to be a part of this section; or
2. a 100-year or 25-year floodplain as defined ~~[based on projected full development as specified]~~ in the Austin City Code ~~[and Drainage Criteria Manual]~~.



**PART 23.** Subsection R322.2.1 (*Elevation requirements*) of City Code Section 25-12-243 (*Local Amendments to the International Residential Code*) is amended to read as follows:

**R322.2.1 Elevation requirements.**

1. Unless otherwise specified in the Land Development Code, the lowest floor of a building or structure must be elevated a minimum of two feet [~~one foot~~] above the design flood elevation.
2. Where the design flood elevation or other elevation requirement specifies, a minimum freeboard of two feet [~~one foot~~] shall be added.
3. In areas of shallow flooding (AO Zones), the lowest floor (including a basement) of a building or structure must be elevated higher than the highest adjacent grade as the depth number specified in feet (mm) on the FIRM plus two feet [~~one foot~~], or at least three feet (915 mm) [~~two feet (610 mm)~~] if a depth number is not specified.
4. A basement floor that is below grade on all sides must be elevated at least two feet [~~one foot~~] above the design flood elevation.

**Exception:** An enclosed area, including a basement, which is below the design flood elevation but not below grade on all sides must meet the requirements in Section R322.2.2 (*Enclosed area below design flood elevation*).

**PART 24.** Subsection R322.2.6 (*Means of egress*) of City Code Section 25-12-243 (*Local Amendments to the International Residential Code*) is amended to read as follows:

**R322.2.6 Means of egress.**

1. Unless otherwise approved by the building official, normal access to the building shall be by direct connection with an area that is a minimum of one foot above the design flood elevation.

- 1           2. For a building that is part of a single-family condo regime  
2           residential building permit application and part of a site plan that  
3           was approved between December 1, 2017, and <INSERT  
4           EFFECTIVE DATE OF ORDINANCE>, compliance with this  
5           section shall be determined at the time of site plan approval.
- 6           3. For a building that is part of a single-family building permit  
7           application and part of (a) a preliminary plan that was submitted for  
8           approval between December 1, 2014 and <INSERT EFFECTIVE  
9           DATE OF ORDINANCE> or (b) a final plat that was approved  
10           between December 1, 2017 and <INSERT EFFECTIVE DATE OF  
11           ORDINANCE>, compliance with this section shall be determined  
12           at the time of preliminary plan or final plat approval, respectively.
- 13           4. For all other buildings, compliance with this section shall be  
14           determined at the time of building permit application.

15 **PART 25.** City Code Section 30-4-1 (*Definitions*) is amended to add a definition of  
16 “Atlas 14” and to renumber the other definitions in this section accordingly:

- 17           (9) ATLAS 14 means the National Oceanic and Atmospheric  
18           Administration’s Precipitation-Frequency Atlas 14 of the United States,  
19           Volume 11, Version 2.0: Texas.

20 **PART 26.** City Code Section 30-4-1 (*Definitions*) is amended to change the definitions  
21 of “100-Year Floodplain” and “25-Year Floodplain” to read as follows:

- 22           (10) 100-YEAR FLOODPLAIN means an area within a floodplain subject to  
23           a one percent or greater chance of flooding in any year as calculated in  
24           accordance with Section 30-4-5 (*Determination of the 100-Year*  
25           Floodplain) [the 100-year floodplain calculated under fully developed  
26           conditions as prescribed by the Drainage Criteria Manual].
- 27           (11) 25-YEAR FLOODPLAIN means an area within a floodplain subject to a  
28           four percent or greater chance of flooding in any year as calculated in  
29           accordance with Section 30-4-6 (*Determination of the 25-Year*  
30           Floodplain) [the 25-year floodplain calculated under fully developed  
31           conditions as prescribed by the Drainage Criteria Manual].

**PART 27.** City Code Section 30-4-5 (*Computation of Stormwater Runoff*) is amended to read as follows:

**§ 30-4-~~7~~[5] COMPUTATION OF STORMWATER RUNOFF.**

- (A) Except as provided in Subsection (B), stormwater [~~Stormwater~~] runoff shall be computed on the basis of a fully developed contributing drainage area or watershed as determined under the Drainage Criteria Manual.
- (B) When determining the runoff generated from the 500-year flood for the purpose of determining the 100-year floodplain under Subsection (B) of Section 30-4-5 (*Determination of the 100-Year Floodplain*), stormwater runoff shall be computed on the basis of an existing developed contributing drainage area or watershed.

**PART 28.** City Code Chapter 30-4 (*Drainage*) is amended to add a new Section 30-4-5 and 30-4-6 to read as follows:

**§ 30-4-5 DETERMINATION OF THE 100-YEAR FLOODPLAIN.**

For purposes of this chapter, the 100-year floodplain shall be:

- (A) For areas amended to incorporate Atlas 14 data, the 100-year floodplain calculated under fully developed conditions as prescribed by the Drainage Criteria Manual as amended to incorporate Atlas 14 data;
- (B) For areas not yet amended to incorporate Atlas 14 data, the 500-year floodplain either as depicted on the FEMA Flood Insurance Rate Map as of January 6, 2016, as subsequently revised, or as calculated under existing conditions as prescribed by the Drainage Criteria Manual using data predating Atlas 14; or
- (C) For the Colorado River, the 100-year floodplain as depicted on the FEMA Flood Insurance Rate Map dated January 6, 2016, or as subsequently revised.

**§ 30-4-6 DETERMINATION OF THE 25-YEAR FLOODPLAIN.**

For purposes of this chapter, the 25-year floodplain shall be:

- 1 (A) For areas amended to incorporate Atlas 14 data, the 25-year  
2 floodplain calculated under fully developed conditions as  
3 prescribed by the Drainage Criteria Manual as amended to  
4 incorporate Atlas 14 data;
- 5 (B) For areas not yet amended to consider Atlas 14 data, the 100-year  
6 floodplain calculated under fully developed conditions as  
7 prescribed by the Drainage Criteria Manual using data predating  
8 Atlas 14; or
- 9 (C) For the Colorado River, the 25-year floodplain as calculated under  
10 exiting conditions as prescribed by the Drainage Criteria Manual  
11 using data predating Atlas 14.

12 **PART 29.** City Code Section 30-5-1 (*Definitions*) is amended to change the definition  
13 of “floodplain modification” to read as follows:

- 14 (10) FLOODPLAIN MODIFICATION means development that results in any  
15 vertical or horizontal change in the cross section of the 100-year  
16 floodplain as determined under Section 30-4-5 (*Determination of the 100-*  
17 *Year Floodplain*) [~~calculated under fully developed conditions as~~  
18 ~~prescribed by the Drainage Criteria Manual~~].

19 **PART 30.** Subsections (A), (C), and (F) of City Code Section 30-5-92 (*Critical Water*  
20 *Quality Zones Established*) are amended to read as follows:

- 21 (A) In the water supply rural watersheds, water supply suburban watersheds,  
22 and Barton Springs Zone, a critical water quality zone is established along  
23 each waterway classified under Section 30-5-91 (*Waterway*  
24 *Classifications*).
- 25 (1) The boundaries of a critical water quality zone coincide with the  
26 boundaries of the 100-year floodplain as determined under Section  
27 30-4-5 (*Determination of the 100-Year Floodplain*), [~~calculated~~  
28 ~~under fully developed conditions as prescribed by the Drainage~~  
29 ~~Criteria Manual~~] except:



- 1 (a) for a minor waterway, the boundaries of the critical water  
2 quality zone are located not less than 50 feet and not more than  
3 100 feet from the centerline of the waterway;
- 4 (b) for an intermediate waterway, the boundaries of the critical  
5 water quality zone are located not less than 100 feet and not  
6 more than 200 feet from the centerline of the waterway;
- 7 (c) for a major waterway, the boundaries of the critical water  
8 quality zone are located not less than 200 feet and not more  
9 than 400 feet from the centerline of the waterway; and
- 10 (d) for the main channel of Barton Creek, the boundaries of the  
11 critical water quality zone are located 400 feet from the  
12 centerline of the creek.

- 13 (2) Notwithstanding the provisions of Subsections (A)(1)(a), (b), and (c),  
14 a critical water quality zone does not apply to a previously modified  
15 drainage feature serving a railroad or public roadway right-of-way  
16 that does not possess any natural and traditional character and cannot  
17 reasonably be restored to a natural condition, as prescribed in the  
18 Environmental Criteria Manual.

- 19 (C) In an urban watershed, a critical water quality zone is established along  
20 each waterway with a drainage area of at least 64 acres. This does not apply  
21 in the area bounded by IH-35, Riverside Drive, Barton Springs Road,  
22 Lamar Boulevard, and 15th Street.

- 23 (1) The boundaries of the critical water quality zone coincide with the  
24 boundaries of the 100-year floodplain as determined under Section  
25 30-4-5 (*Determination of the 100-Year Floodplain*), [~~calculated~~  
26 ~~under fully developed conditions as prescribed by the Drainage~~  
27 ~~Criteria Manual;~~] provided that the boundary is not less than 50 feet  
28 and not more than 400 feet from the centerline of the waterway.
- 29 (2) Notwithstanding the provisions of Subsection (C)(1), a critical water  
30 quality zone does not apply to a previously modified drainage feature  
31 serving a railroad or public roadway right-of-way that does not

1 possess any natural and traditional character and cannot reasonably  
2 be restored to a natural condition.

3 (F) Critical water quality zones are established along and parallel to the  
4 shorelines of the Colorado River downstream of Lady Bird Lake.

5 (1) The shoreline boundary of a critical water quality zone coincides with  
6 the river's ordinary high water mark, as defined by Code of Federal  
7 Regulations Title 33, Section 328.3 (*Definitions*).

8 (2) The inland boundary of a critical water quality zone coincides with  
9 the boundary of the 100-year floodplain as determined under Section  
10 30-4-5 (Determination of the 100-Year Floodplain) [~~delineated by~~  
11 ~~the Federal Emergency Management Agency~~], except that the width  
12 of the critical water quality zone, measured horizontally inland, is  
13 not less than 200 feet and not more than 400 feet.

14 **PART 31.** Subsection (A) of City Code Section 30-5-121 (*Environmental Resource*  
15 *Inventory Requirement*) is amended to read as follows:

16 (A) An applicant shall file an environmental resource inventory with the  
17 director for proposed development located on a tract:

18 (1) within the Edwards Aquifer recharge or contributing zone;

19 (2) within the Drinking Water Protection Zone;

20 (3) containing a water quality transition zone;

21 (4) containing a critical water quality zone; or

22 (5) [~~containing a floodplain; or~~

23 (6)] with a gradient of more than 15 percent.

24 **PART 32.** Parts 1 through 24 of this ordinance take effect on  
25 \_\_\_\_\_, 2019. Parts 25 through 31 of this ordinance take  
26 effect on the effective date of a Travis County ordinance enacting the same or  
27 substantially similar provisions.

**PASSED AND APPROVED**

\_\_\_\_\_, 2019

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\_\_\_\_\_  
Steve Adler  
Mayor

**APPROVED:**

\_\_\_\_\_  
Anne L. Morgan  
City Attorney

**ATTEST:**

\_\_\_\_\_  
Jannette S. Goodall  
City Clerk

DRAFT