

National Weather Service study updates our understanding of flood risk.



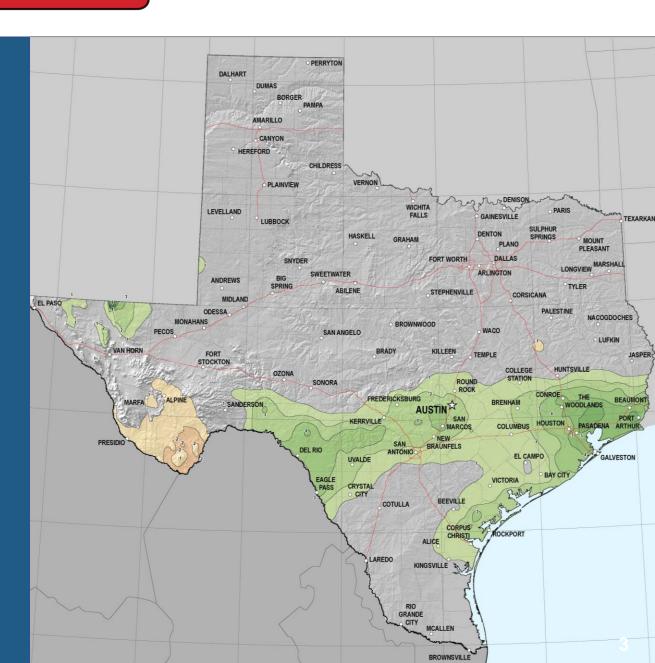


## **Overview**

- Study background
- Summary of key impacts
- Recommended response
- Stakeholder process and feedback
- Next steps

## **Atlas 14 Rainfall Changes**

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

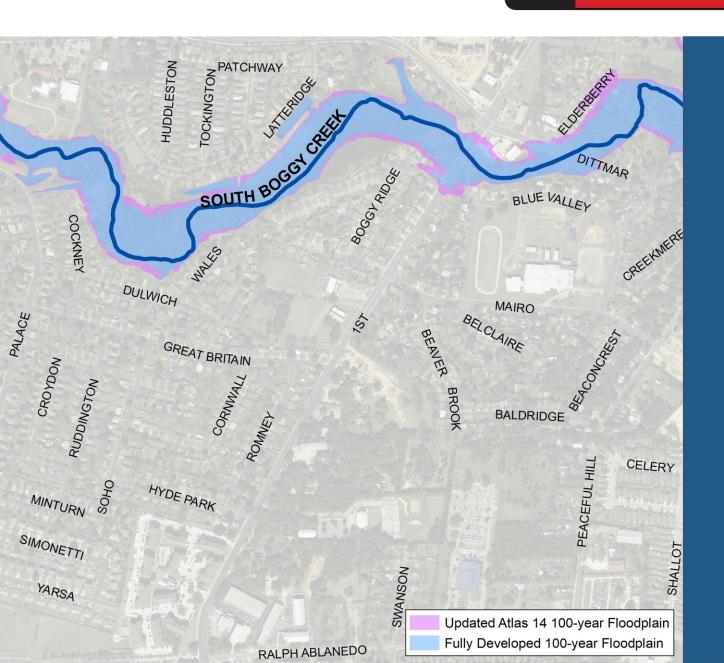


## PERCONTE LOS CIELOS CAMPANA NOCHE CLARA SKYHARBOR BUENOSAIRES CONSTELLATION DRY CREEK EAST Updated Atlas 14 100-year Floodplain Fully Developed 100-year Floodplain

#### 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



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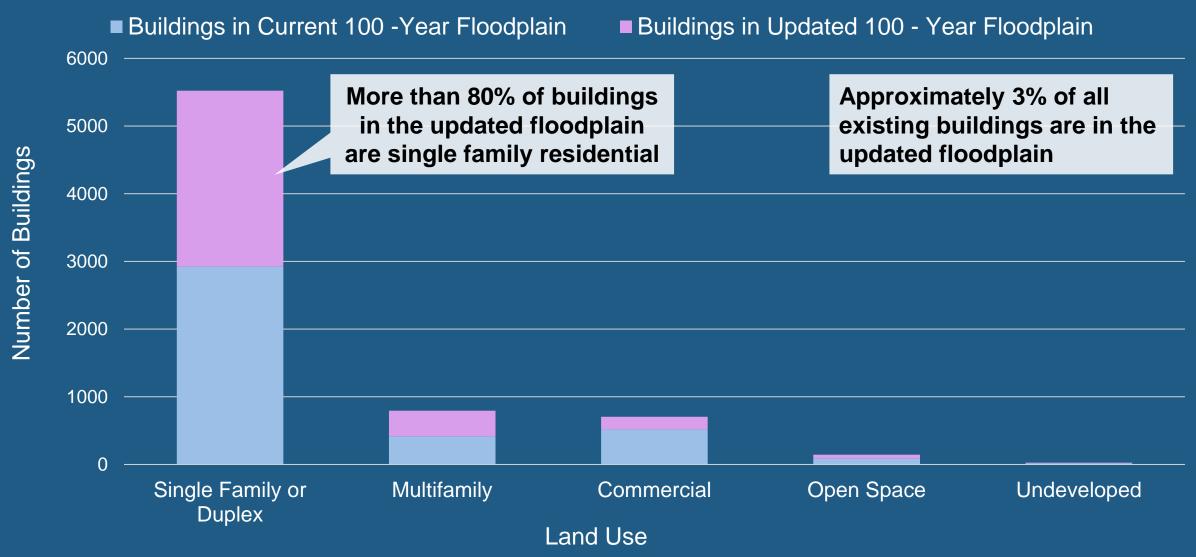
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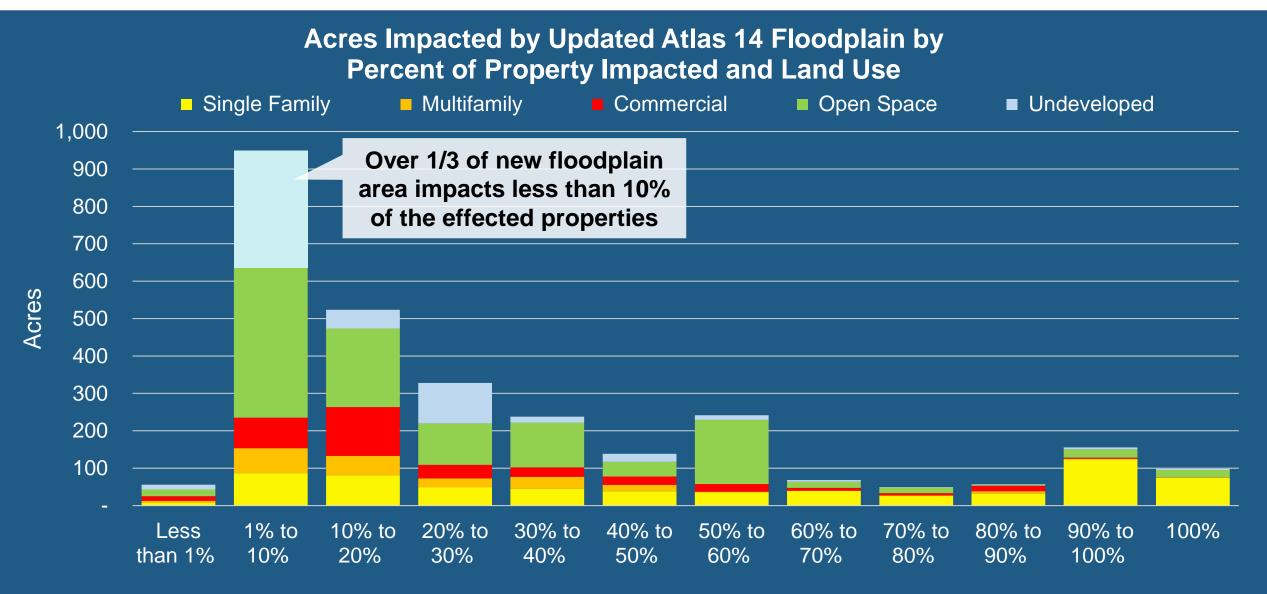
## Key impacts of Atlas 14 updated rainfall data

Measure	Current	Updated	Percent Increase
100-year rainfall (24-hour)	10.2 inches	Up to 13+ inches	30%
Buildings in 100- year floodplain	4,000	7,200*	80%
Buildings in the 25-year floodplain	2,000	4,000	100%

<sup>\*</sup>Excludes Colorado River floodplain and associated lakes





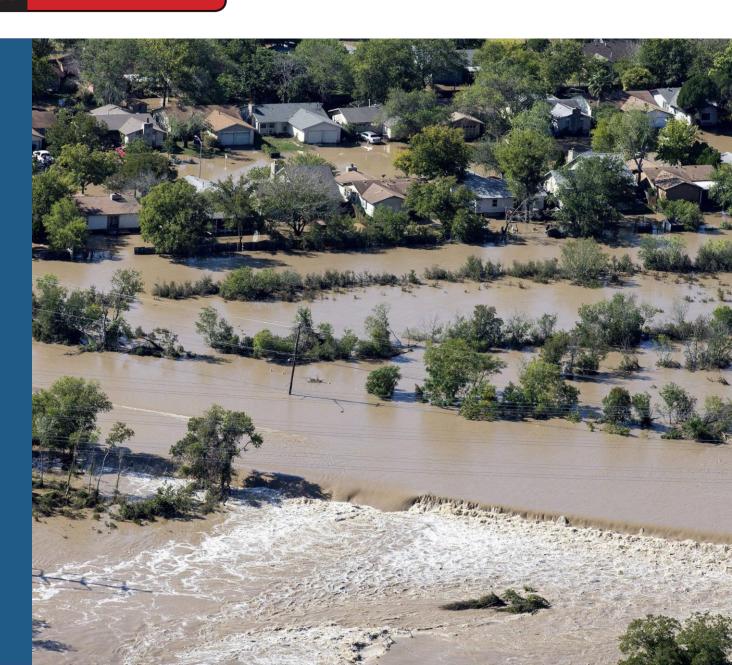


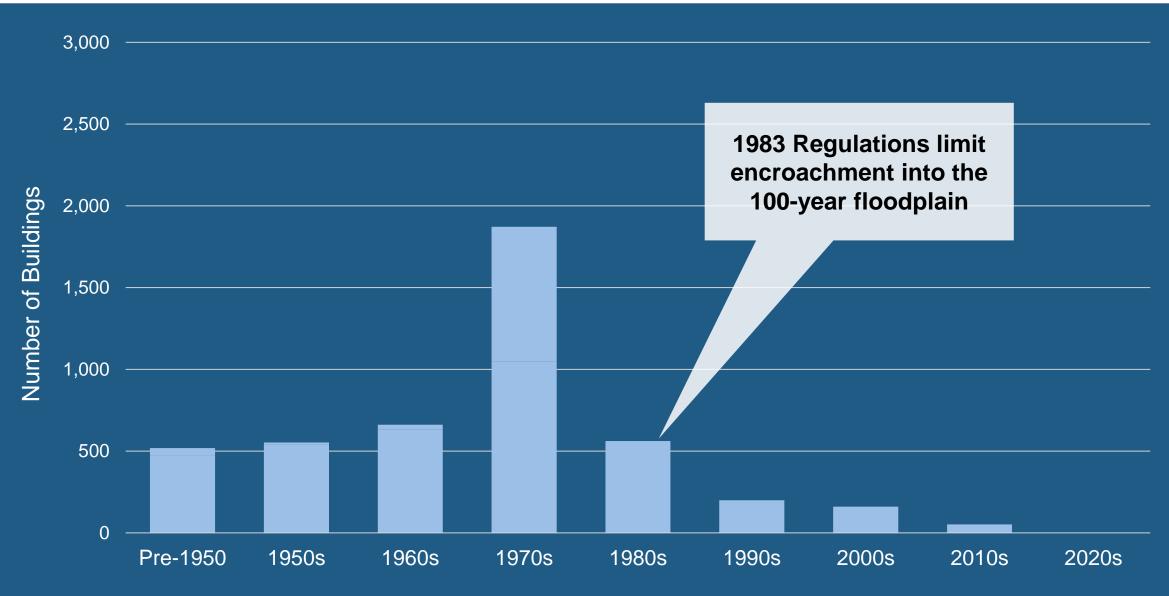
Percent of Property Newly Impacted by Floodplain

#### City of Austin

## Floodplain Regulation **History**

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





Number of buildings constructed in the current 100-year floodplain by decade

## Recommended Response

## Step 1

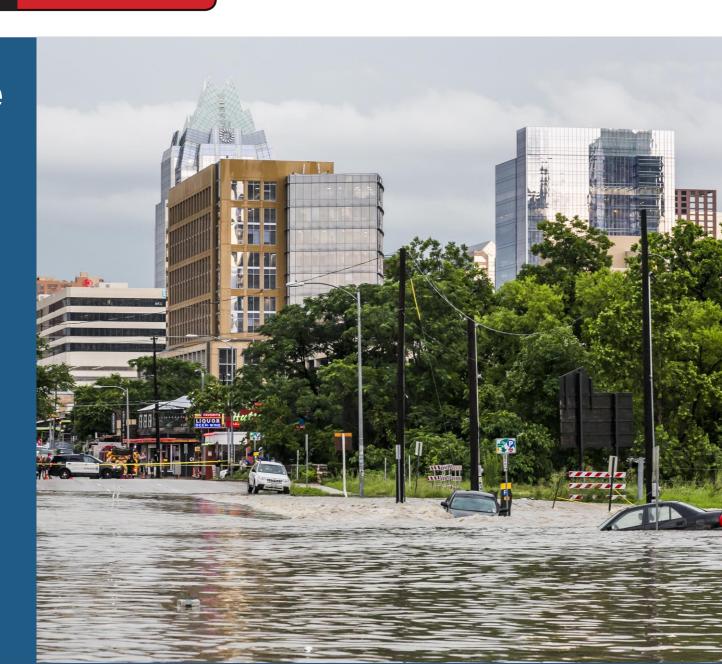
Land Development Code amendments

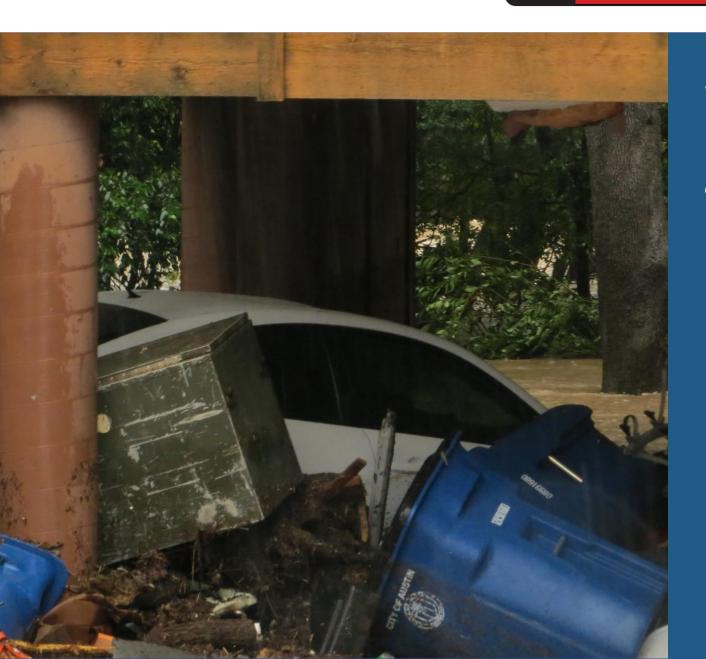
## Step 2

Drainage Criteria Manual revisions

## Step 3

Floodplain Study and Mapping Updates





## 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

- 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)
25-year (4% chance)	7.6 inches	Almost 10 inches
100-year (1% chance)	10.2 inches	Up to 13+ inches
500-year (0.2% chance)	13.5 inches	Up to 19.5 inches

### Revise floodplain definitions

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#### **Purpose**

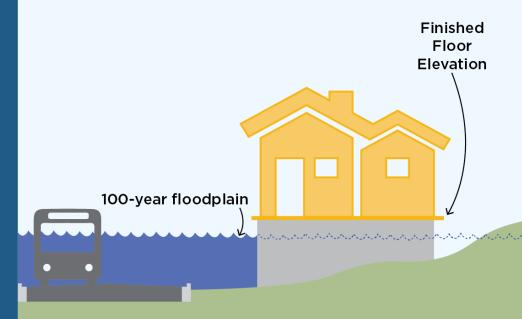
Limit construction of new buildings in areas with known flood risk during remapping process

## Create a redevelopment exception

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

- 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

If these 3 conditions are met, the safe access requirement is waived



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#### **Purpose**

- Incentivizes development that decreases flood risk
- 80% of buildings in the updated 100-year floodplain are residential
- Limits the number of dwelling units at risk

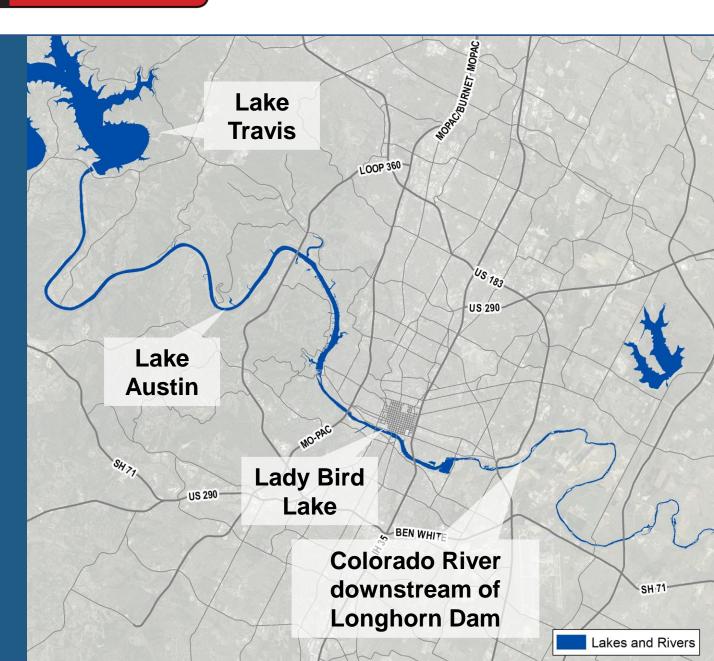
## **Expand the Colorado River** exception

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 lowest floor and the 100-year floodplain from 1 ft to 2 ft

#### **Purpose**

- Simplify regulations with uniformity
- Freeboard is the single-most effective means for reducing flood risk to a building in the floodplain



100-Year Water Surface Elevation Floor

Elevation

## **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 •

#### Floodplain Study and Mapping Updates Step 3

- Utilize consultants from rotation list to complete studies
- Process to take 2 3 years
- Once complete, will provide data to FEMA to update flood insurance maps

## Stakeholder Outreach

Public Meetings	Professional Organizations	Other Organizations	Neighborhood Groups
<ul> <li>5 public meetings focusing on areas with largest floodplain impacts</li> <li>2 public meetings focusing on floodwalls</li> <li>24,000 postcards sent to residents and property owners</li> </ul>	<ul> <li>American Society of Civil Engineers</li> <li>Austin Contractors and Engineer's Association</li> <li>American Institute of Architects</li> <li>Austin Board of Realtors</li> <li>National Association of Professional Mortgage Women</li> <li>Texas Water Research Network</li> <li>Society for Marketing Professional Services</li> <li>Real Estate Council of Austin</li> <li>Home Builders Association</li> <li>Austin Infill Coalition</li> </ul>	<ul> <li>Downtown Austin Alliance</li> <li>Waller Creek Conservancy</li> <li>Shoal Creek Conservancy</li> </ul>	<ul> <li>Austin         Neighborhoods         Council</li> <li>Onion Creek         Homeowners         Association</li> </ul>

## **Stakeholder Outreach**

City and County		Council & Commissions
<ul> <li>Development Services</li> </ul>	<ul> <li>Austin Water</li> </ul>	Codes and Ordinances Joint Committee
<ul> <li>Parks and Recreation</li> </ul>	<ul> <li>Sustainability</li> </ul>	Environmental Commission
<ul> <li>Neighborhood Housing and Development</li> </ul>	<ul> <li>Office of Real Estate</li> </ul>	<ul> <li>Zoning and Platting Commission</li> </ul>
	<ul> <li>Department of Aviation</li> </ul>	Council Offices
<ul> <li>Capital Planning Office</li> </ul>	Travis County	
<ul> <li>Law Department</li> </ul>		
Public Works		
Austin Transportation     Department		

## Proposal Changes due to Stakeholder Input

- Extended outreach period to reach more stakeholders •
- Removed limit on maximum floor area for the redevelopment • exception
- Will revise criteria to remove the requirement for an Environmental Resource Inventory outside of a creek buffer

### **Stakeholder Concerns**

- Permitting uncertainty for development projects
- Impact of increased freeboard to visitability compliance
- Impact of increased freeboard to McMansion height restrictions
- Creek buffer impacts of floodplain expansion •
- Parkland Dedication impacts of floodplain expansion
- Lack of commercial redevelopment exception
- No floodplain disclosure for tenants

## **Anticipated Timeline**

**Dec 2018** 

Jan 2019

Feb 2019

**May 2019** 

(Timeline to be decided pending input)

Step 1
Code

**Boards and Commissions** 

City Council New floodplain definitions effective

(Staff recommends changes become effective immediately upon Council adoption)

Step 2 Criteria Provide guidance to development community

Staff working on proposed rules

Stakeholder Meetings

Criteria effective (TBD after

stakeholder input)

Administrative approval process (depends on effective date)

Step 3
Mapping

Initiate studies with existing rotation list

Initiate process to create new rotation list (will need City Council approval)

Public meetings when studies near completion (Estimated 2021)

