



Travis County Flood Mitigation Study

Onion Creek-Bluff Springs Rd Neighborhoods

February 21, 2017



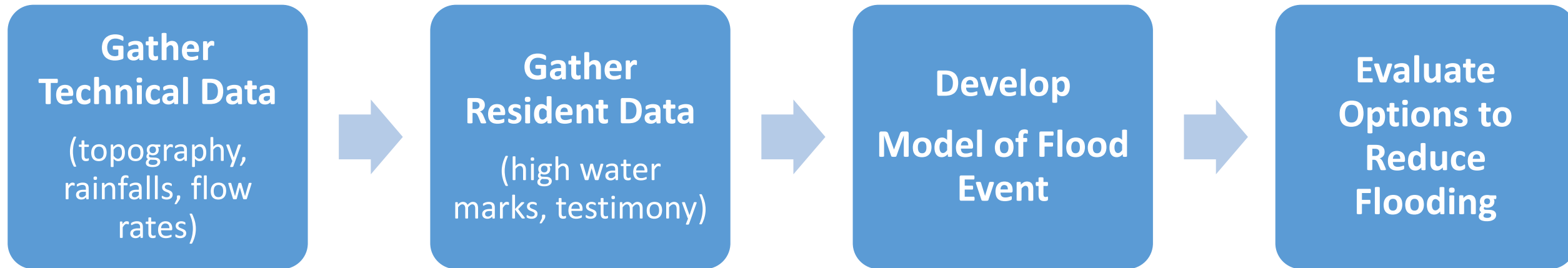
Study Purpose

Travis County is conducting a comprehensive study of recent flood events to:

- Better understand what happened
- Plan for the future
- Explore flood mitigation options



How is the study conducted?





Reason for Tonight's Meeting

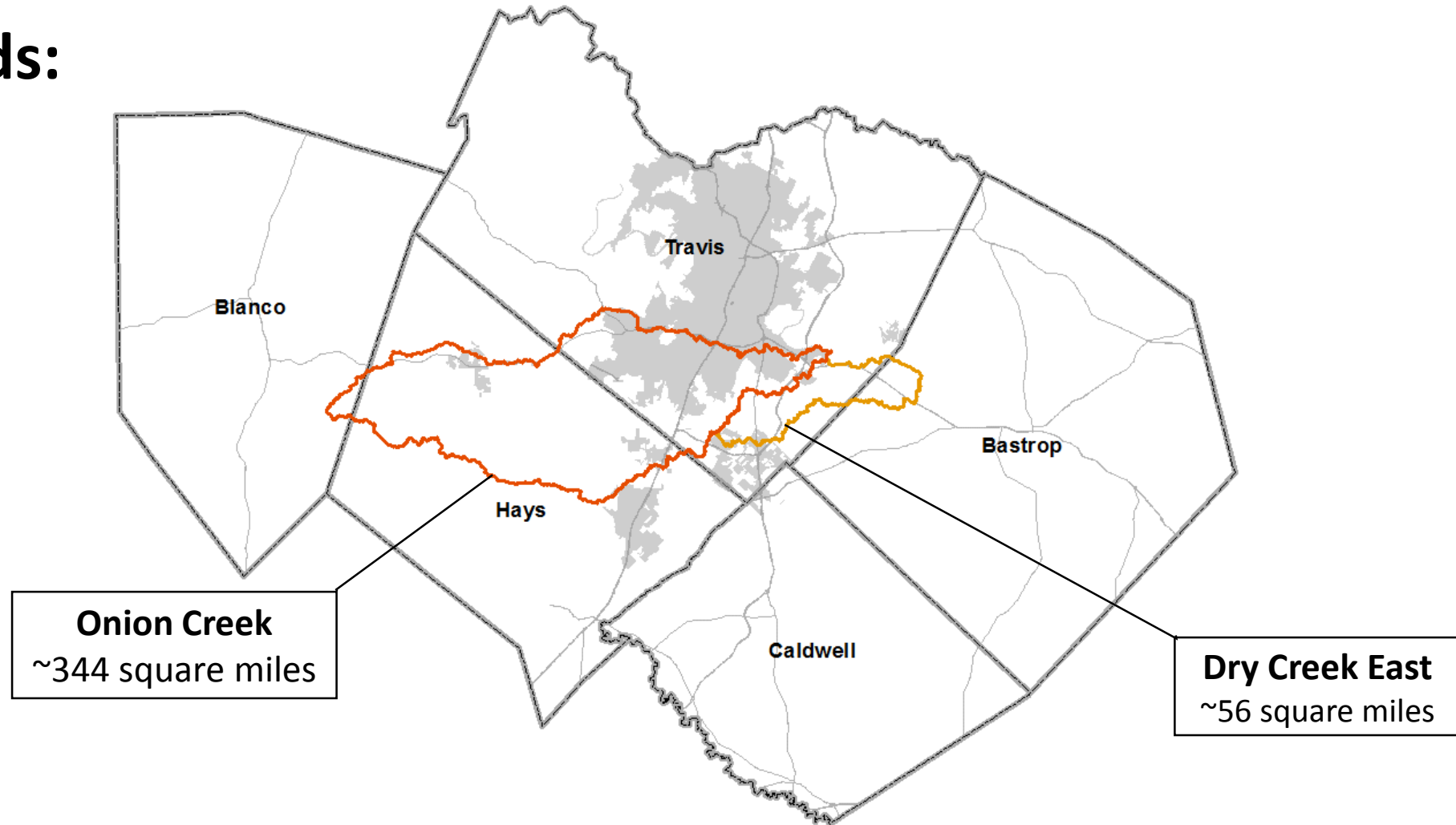
- Introduce the study
- Explain the process
- Hear your concerns
- Collect information





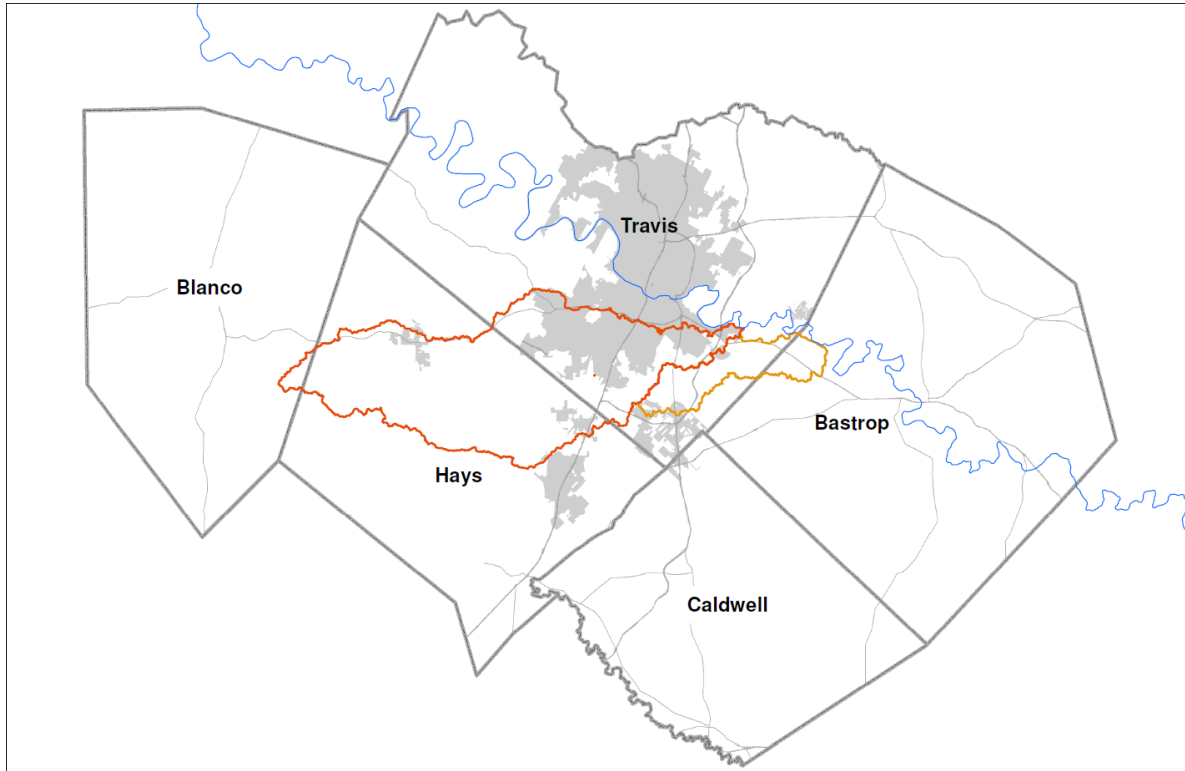
Project Limits – Study Areas

Watersheds:

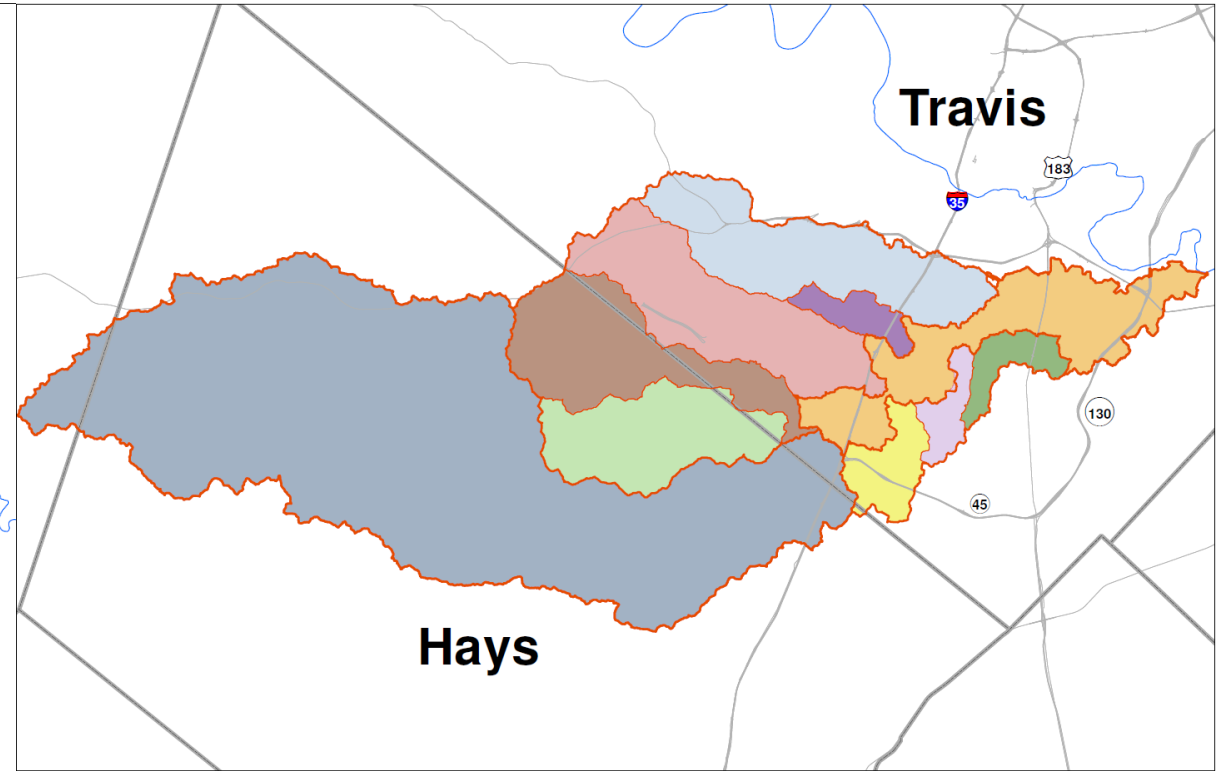




Watershed or Sub-watershed?



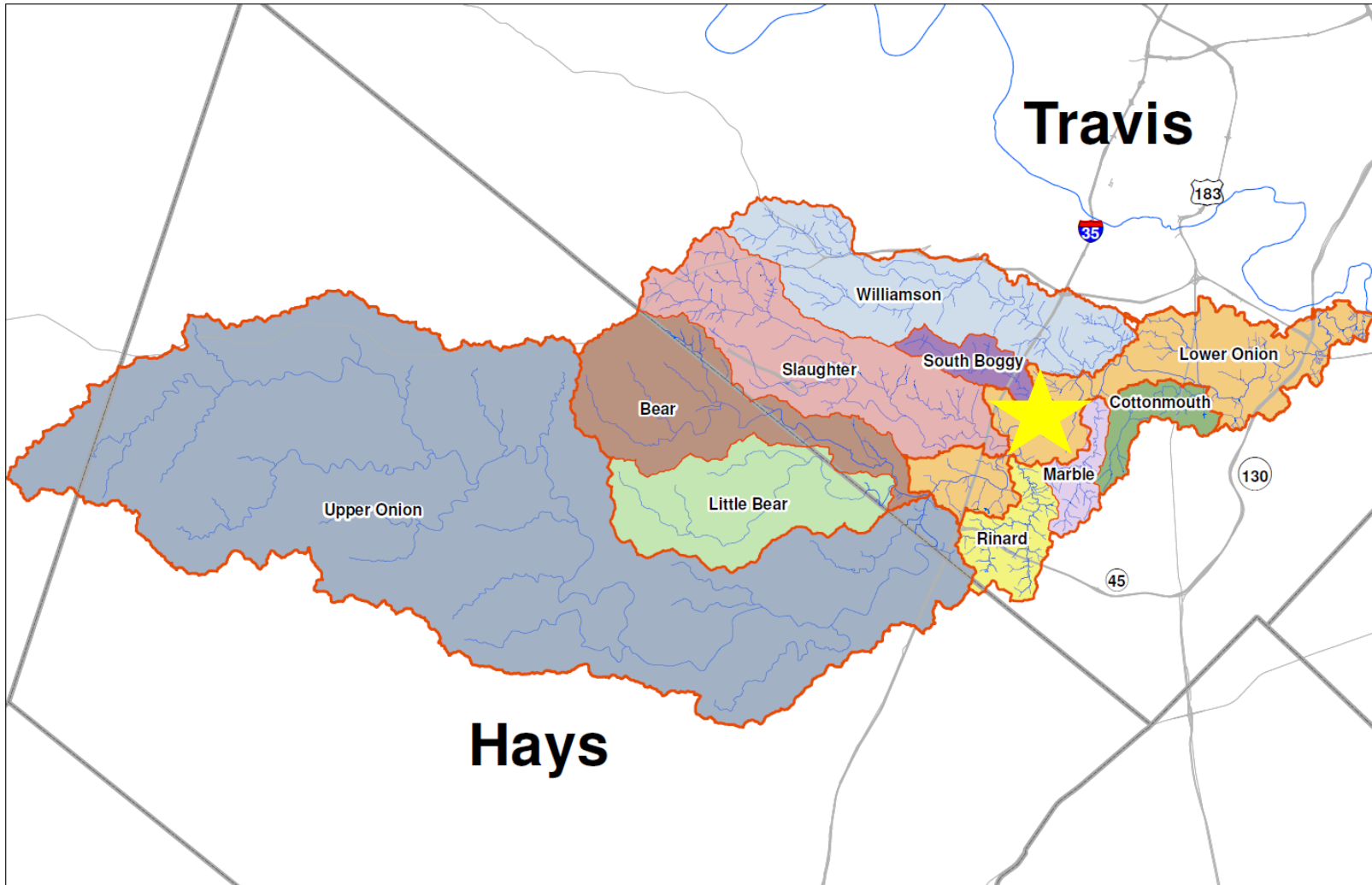
Watershed: An area of land that drains to a common location



Subwatershed: smaller portion of a larger watershed



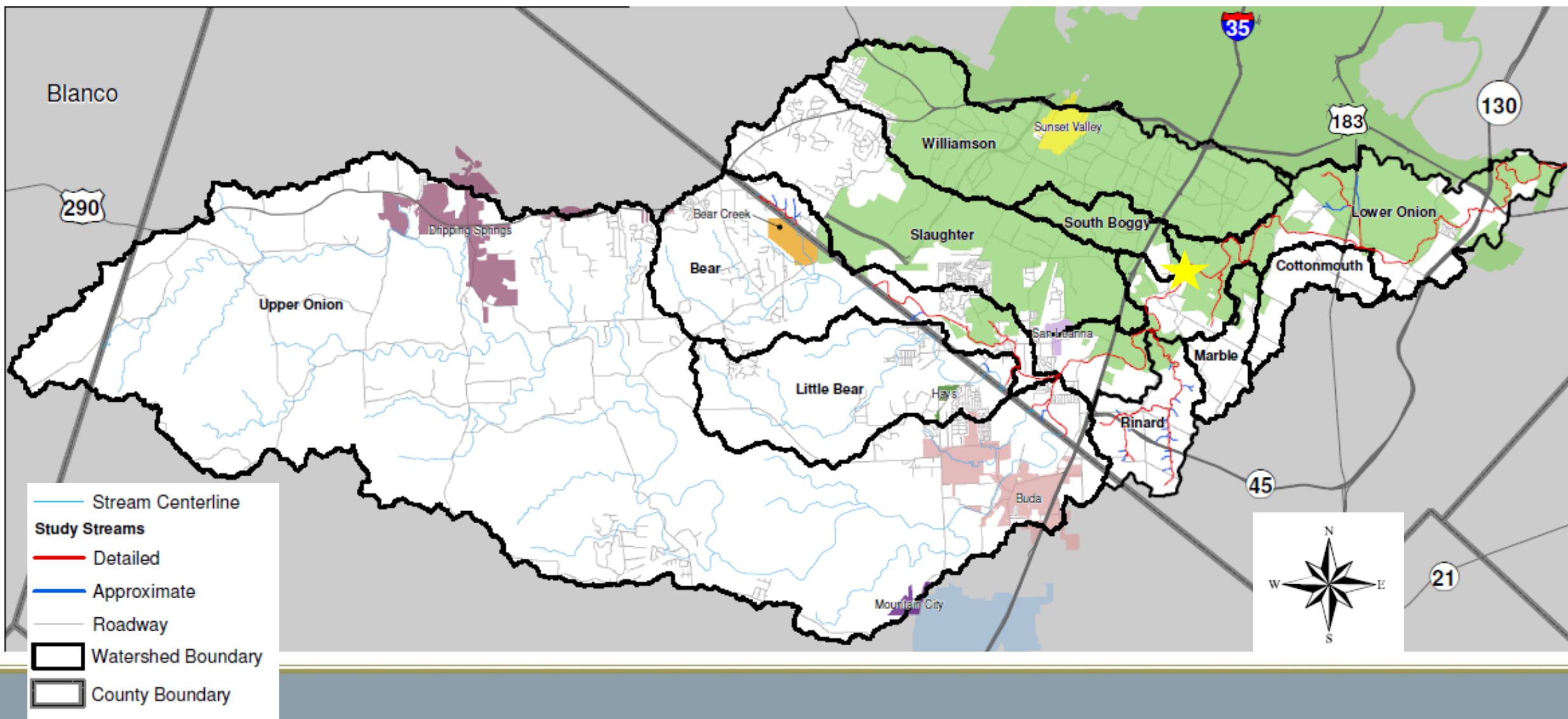
Onion Creek Subwatersheds



1. Upper Onion
2. Bear
3. Little Bear
4. Slaughter
5. South Boggy
6. Rinard
7. Marble
8. Cottonmouth
9. Lower Onion

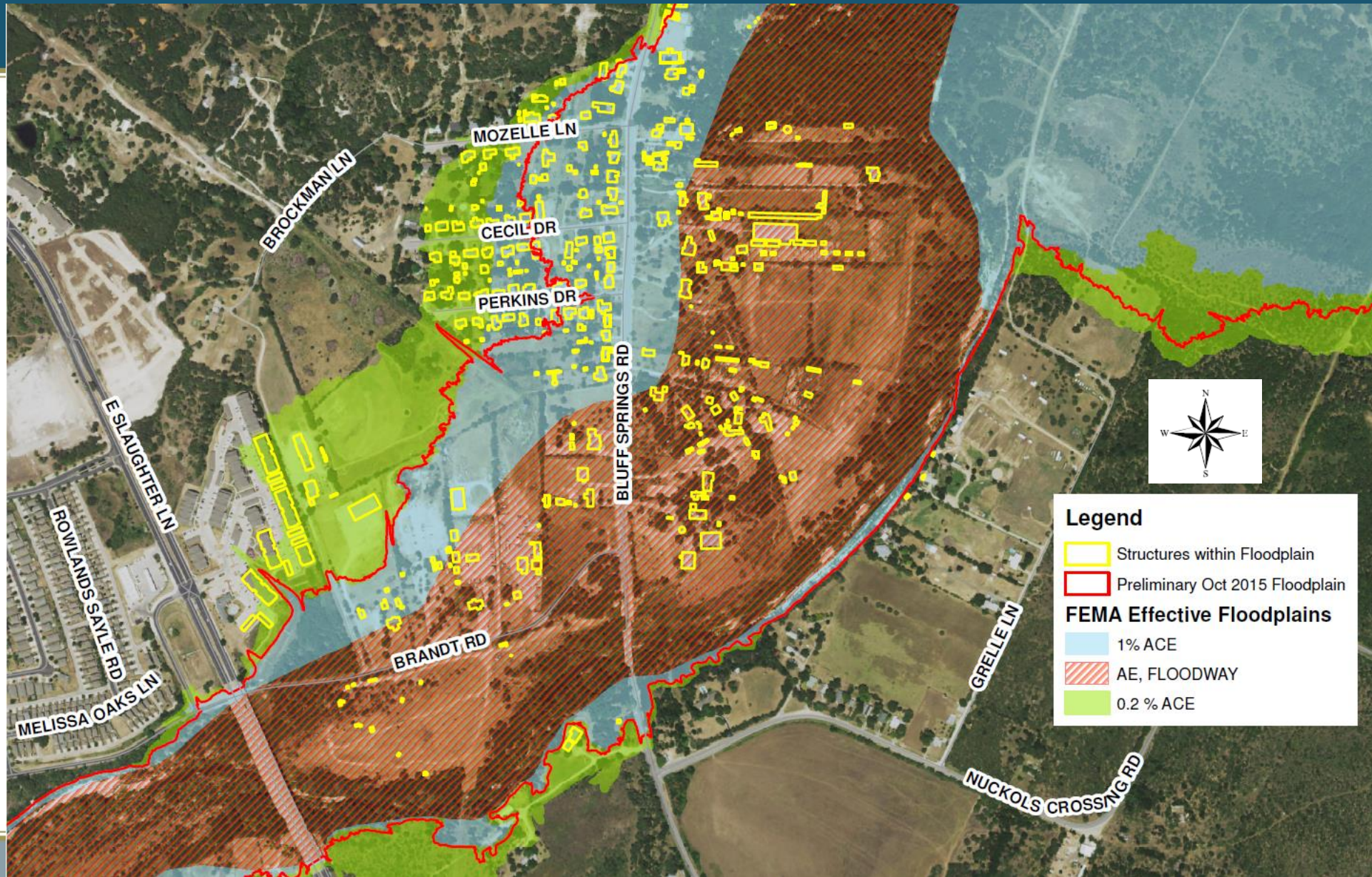


Onion Creek Study Types





Bluff Springs Neighborhood

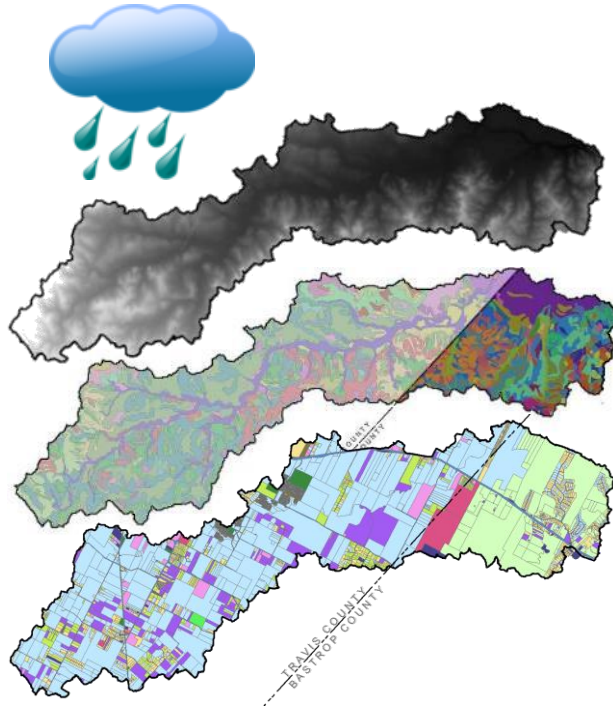




Floodplain Management Overview

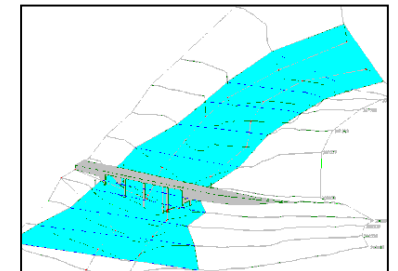
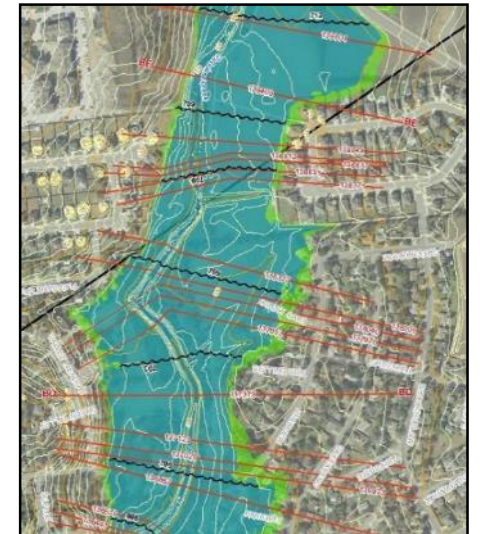
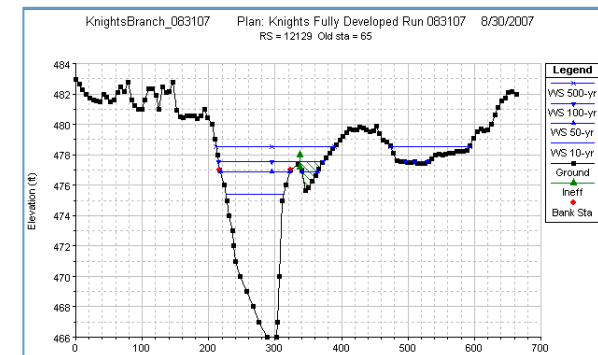
- **Hydrology** – Water movement to creek

- Rainfall
- Topography
- Soils
- Land Use



- **Hydraulics** – Water movement in creek

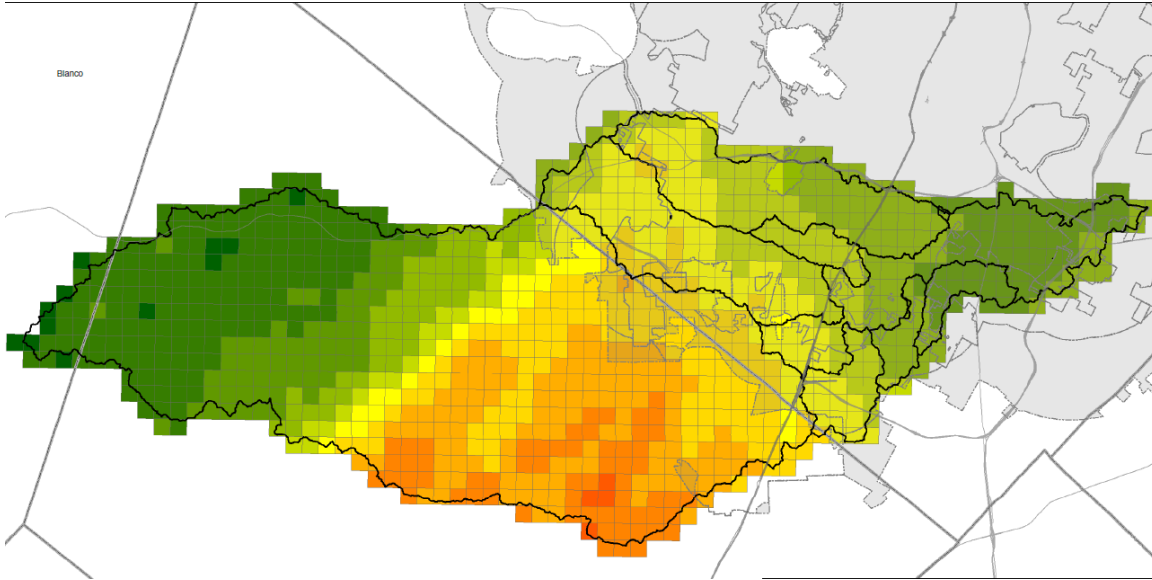
- Hydrology
- Topography
- Cross-Sections
- Creek Crossings



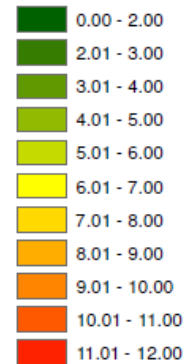


Onion Creek Rainfall

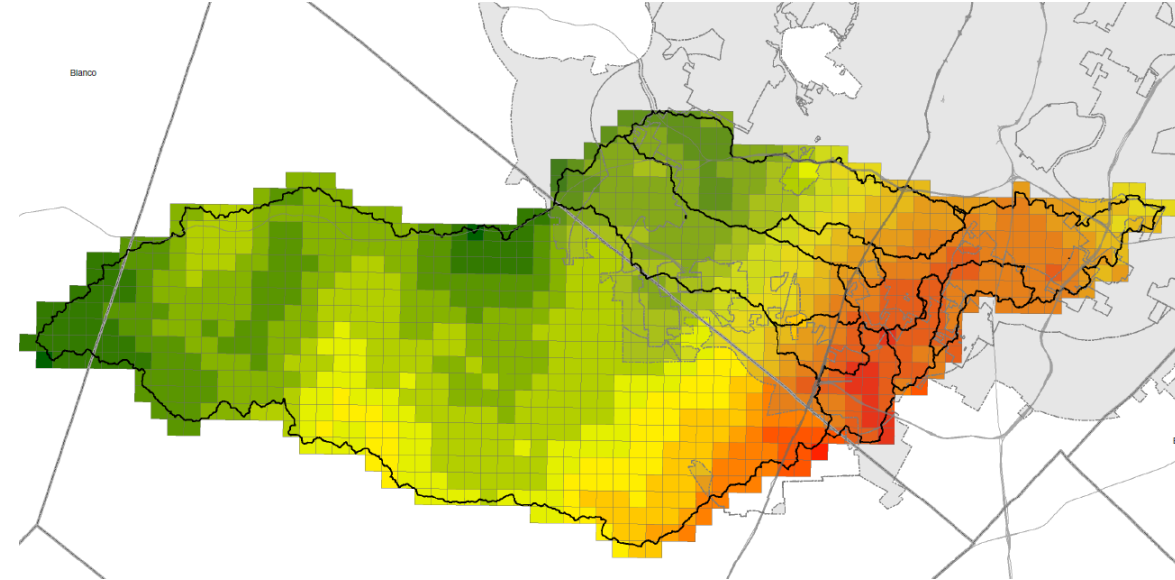
October 2013



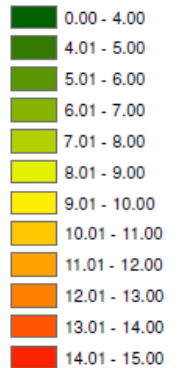
Rainfall (inches)



October 2015

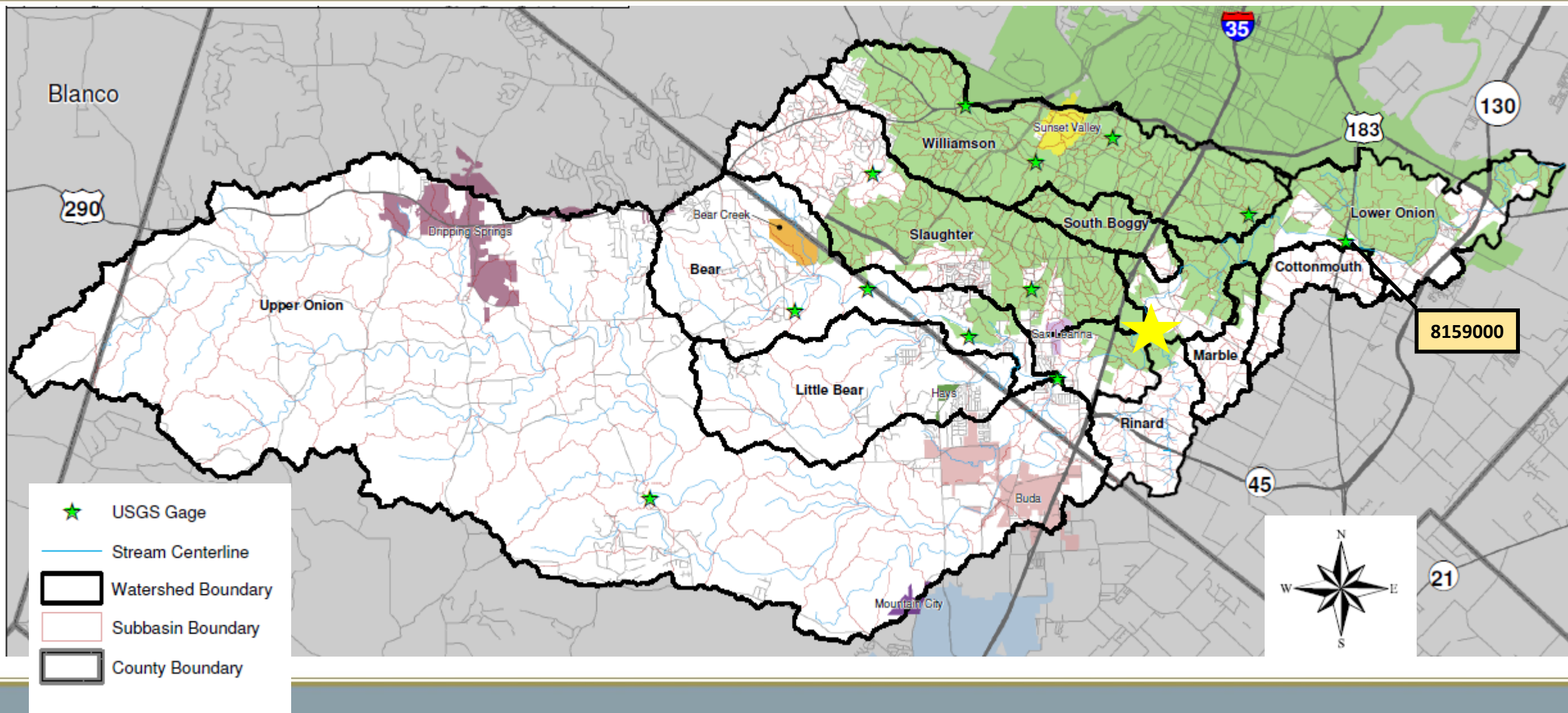


Rainfall (inches)

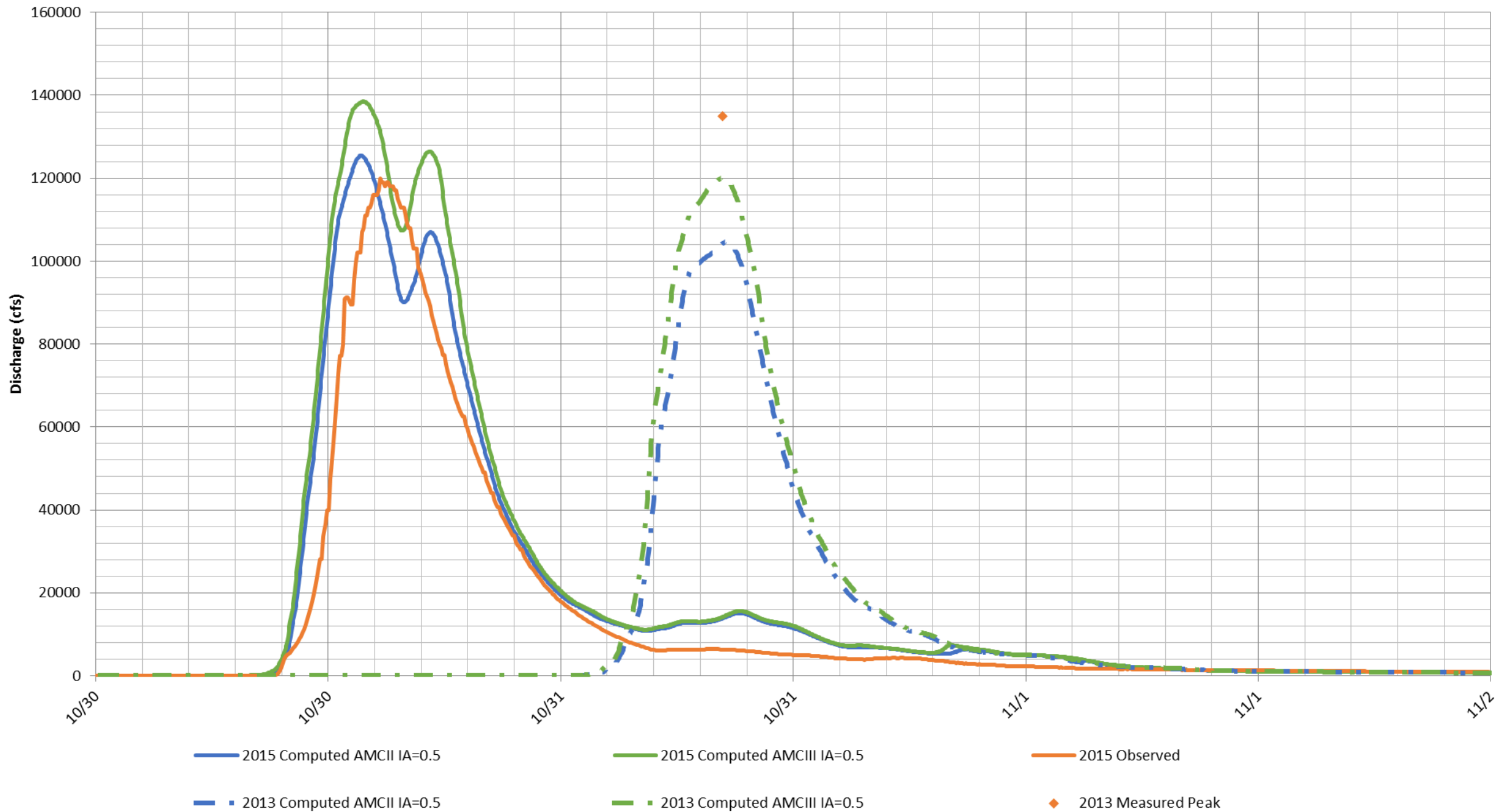




Onion Creek USGS Flow Gages

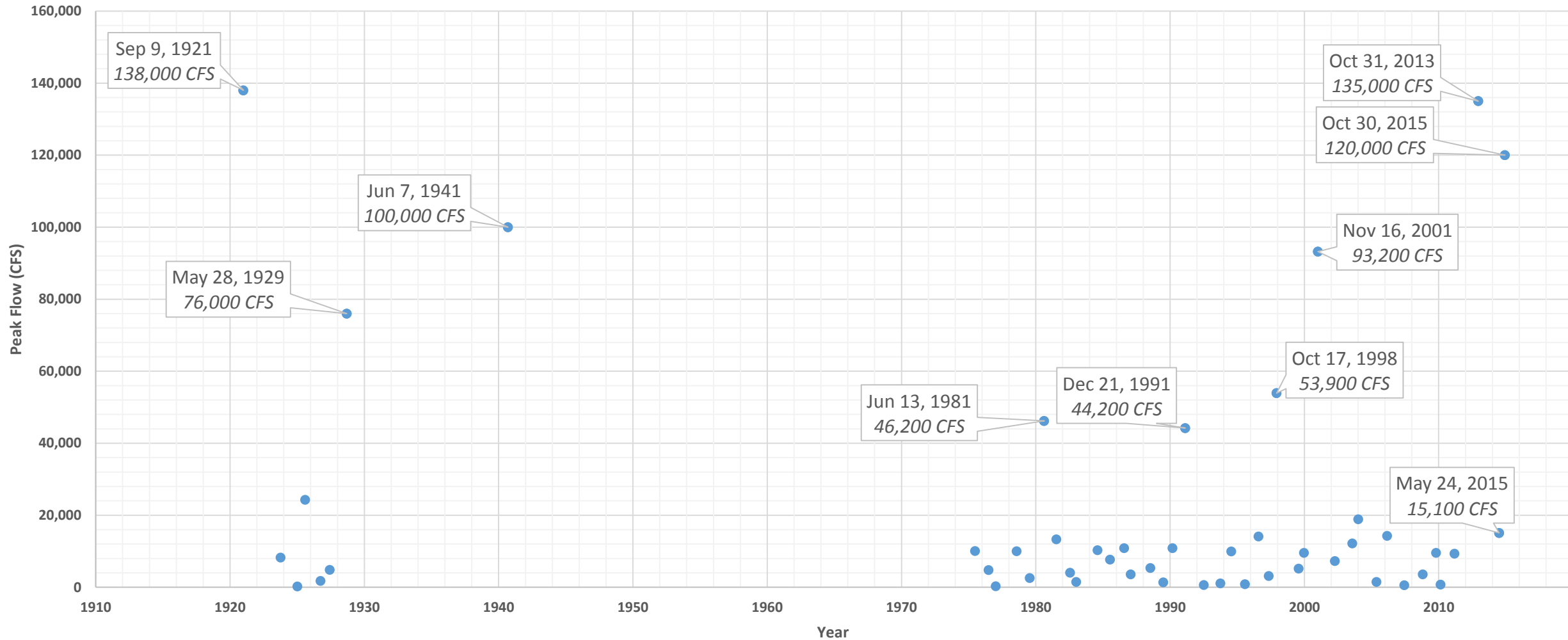


USGS 08159000 - Onion Ck at US Hwy 183





USGS Gage 08159000 at US-183





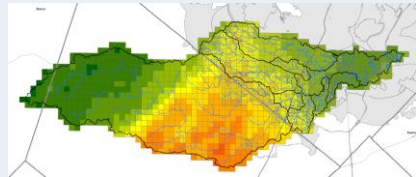
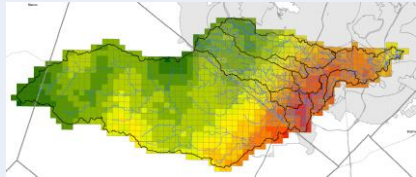
Probability of Flooding

Flood Events	Probability of Occurrence in ANY given year	Percent Chance of Occurrence in ANY given year
500 Year	1 in 500	0.2 %
100 Year	1 in 100	1 %
50 Year	1 in 50	2 %
10 Year	1 in 10	10 %



Onion Creek Weather Events

	Flow (cubic feet per second)			
	1% ACE	0.2% ACE	Oct 31, 2013	Oct 30, 2015
Onion Creek at Slaughter Ln	104,500 cfs	163,900 cfs	110,700 cfs*	103,500 cfs*
Onion Creek at US 183	121,900 cfs	179,500 cfs	135,000 cfs*	120,000 cfs*

	Rainfall (inches)			
	1% ACE	0.2% ACE	Oct 31, 2013	Oct 30, 2015
			9-12 (6 hr)	11-15 (6 hr)
Onion Creek at Slaughter Ln	6.9 (6 hr)	9.4 (6 hr)		

*Preliminary Data from City of Austin ongoing study



Share Your Input - High Water Marks

- Help us calibrate and validate our models
- How you can help:
 - Complete questionnaire
 - Tell your story
 - Draw on maps
 - Share photos/videos

Please fill out the Questionnaires!



10605 Ponder Lane HWM approx. 2 ft 8 in



Travis County Flood Mitigation Study

Thank you for your time and input!

