



# Reata Wash Flood Control Study

## Get Ready to Participate:

- Send TEXT message
  - TO: 22333
  - MESSAGE: gciaz
- You will receive a reply:
  - You've joined Theresa Gunn's session (GClAZ)





# Reata Wash Flood Control Study

**Public Meeting**  
**March 2, 2016**

# Tonight's Agenda

- **Interactive Exercise: The Reata Wash Floodplain**
- **Overview of the Reata Wash Flood Control Study**
- **Discussion:**
  - *Importance of reducing flood risks*
- **Next Steps**
- **Questions via “Poll Everywhere” & question cards**
- **Open House**

# Tips for a Good Meeting

- Silence phones but keep available to participate
- Everyone encouraged to participate
  - Public discussion, not a debate
- Allow time for others (no long speeches)
- Be respectful of others' opinions
  - Do not interrupt other participants
- Listen with an open mind

# Reata Wash Flood Control Study

## Purpose

- Protect residents and property
- Protect community facilities & infrastructure
- Maintain emergency access

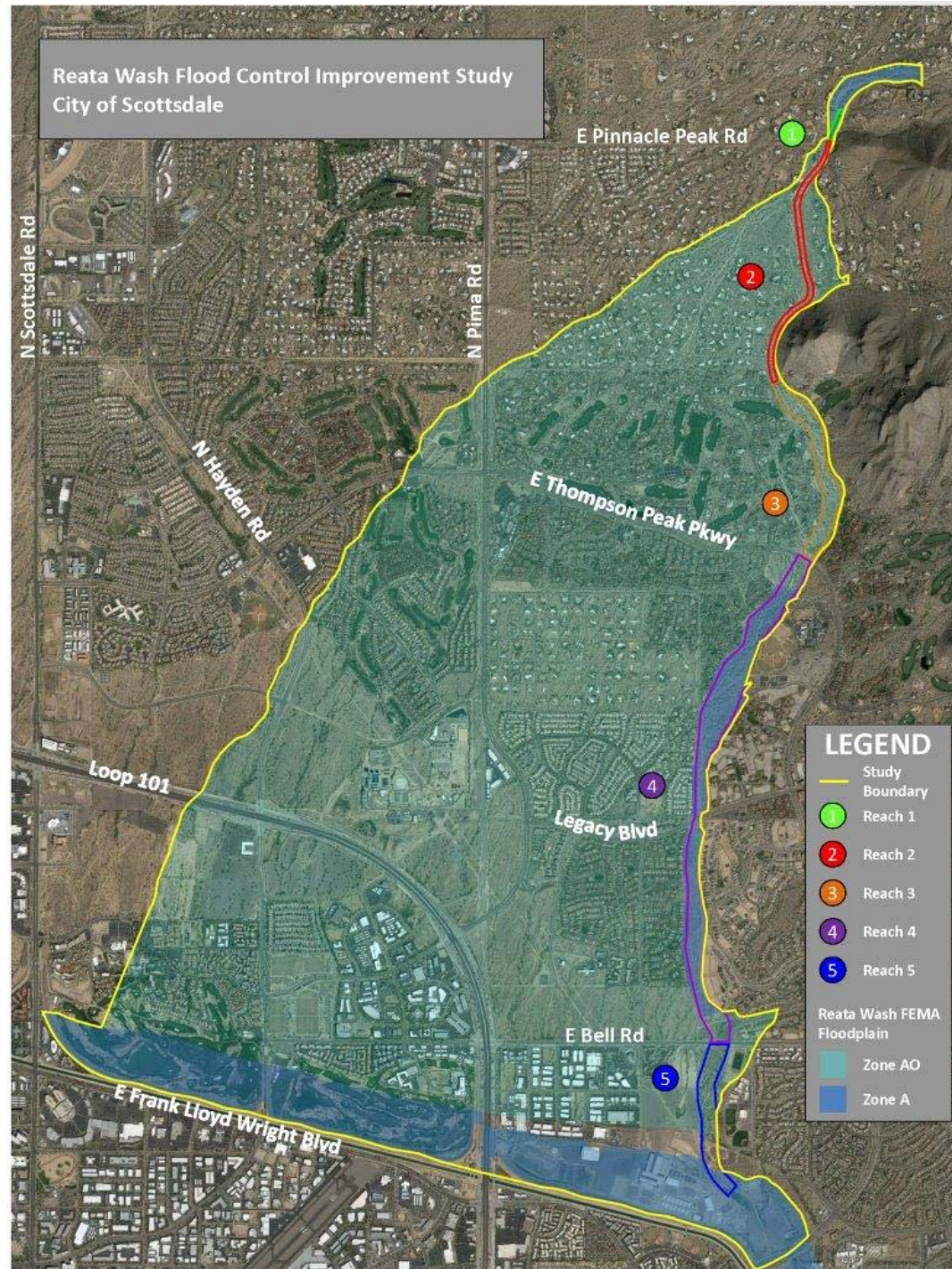
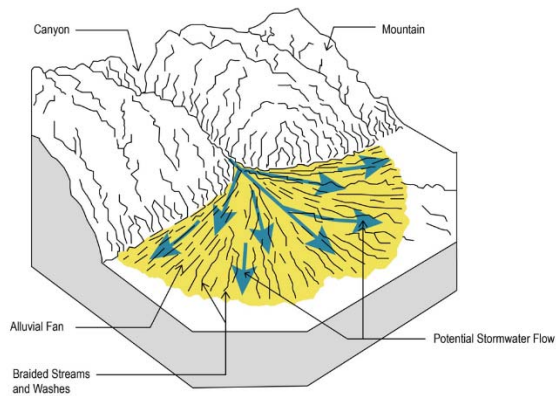
## How

- Identify existing flood control structures
  - Determine Federal Emergency Management Agency (FEMA) compliance
- Identify potential flood control measures and their cost
- Engage public/seek input

## Results

- Recommend alternative solutions to Council
  - Reduce risk of flooding
  - Remove or reduce current FEMA floodplain
- No funding currently identified for improvements
  - Council would need to allocate \$ to move forward

# Reata Wash Floodplain



# Q: What is a 100-year flood?



Desert Mountain subdivision, Scottsdale  
Aug. 2014 storm

# What is a 100-year flood?

- A. 1% chance to occur in any year
- B. Can have more than one in a single year
- C. Determined by NOAA using historical data
- D. 4-5" of rain in 24 hours
- E. All of the above



# A: All of the Above

- 1% chance to occur in any year
- Can have more than one in a single year
- Determined by National Oceanic and Atmospheric Administration (NOAA) using historical rainfall data
- 4-5" of rain in 24 hours over this watershed

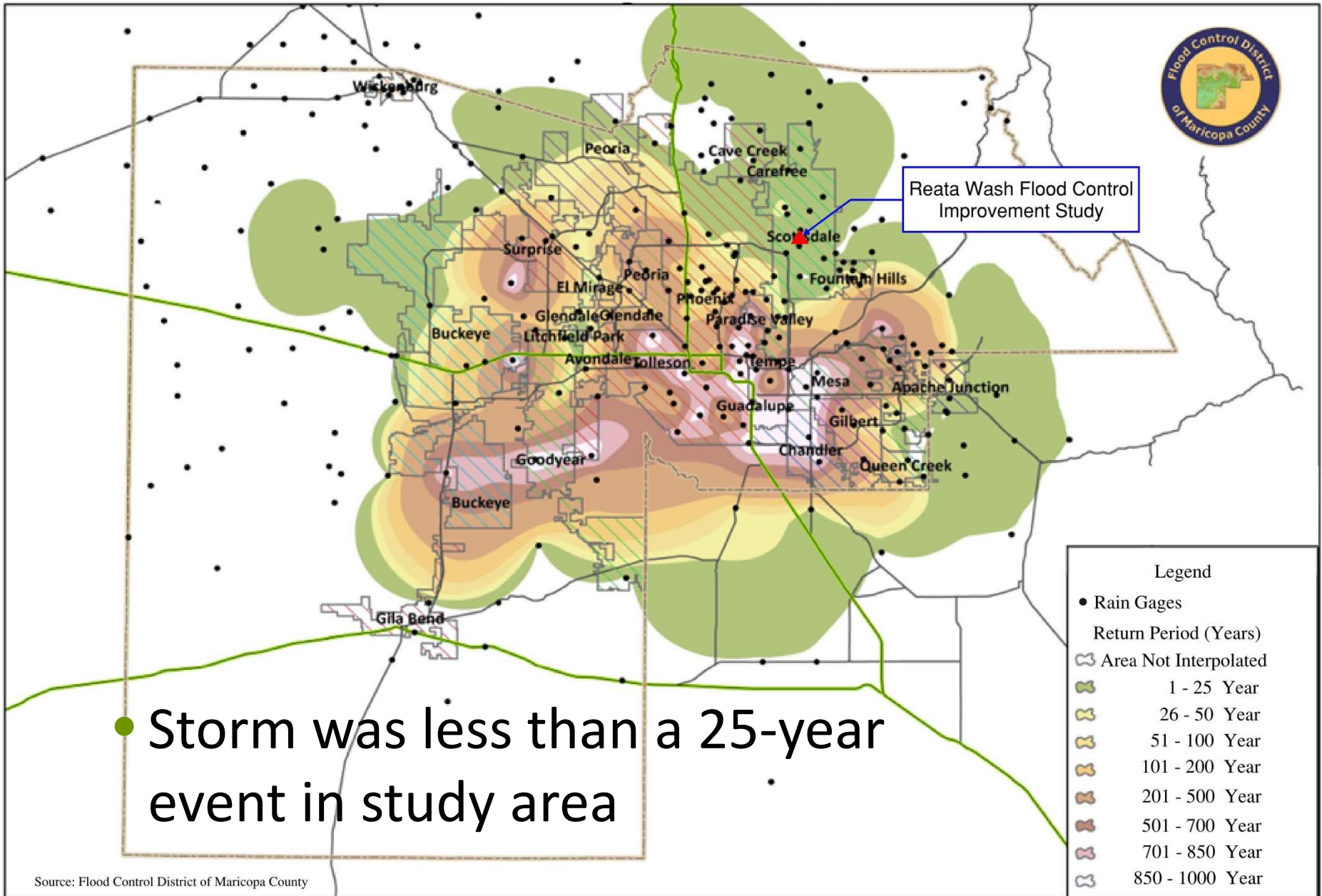
# Why We Care About the 100-Year Flood

- Used to determine the FEMA floodplain hazard areas
- Federal and local standard for structural flood protection measures



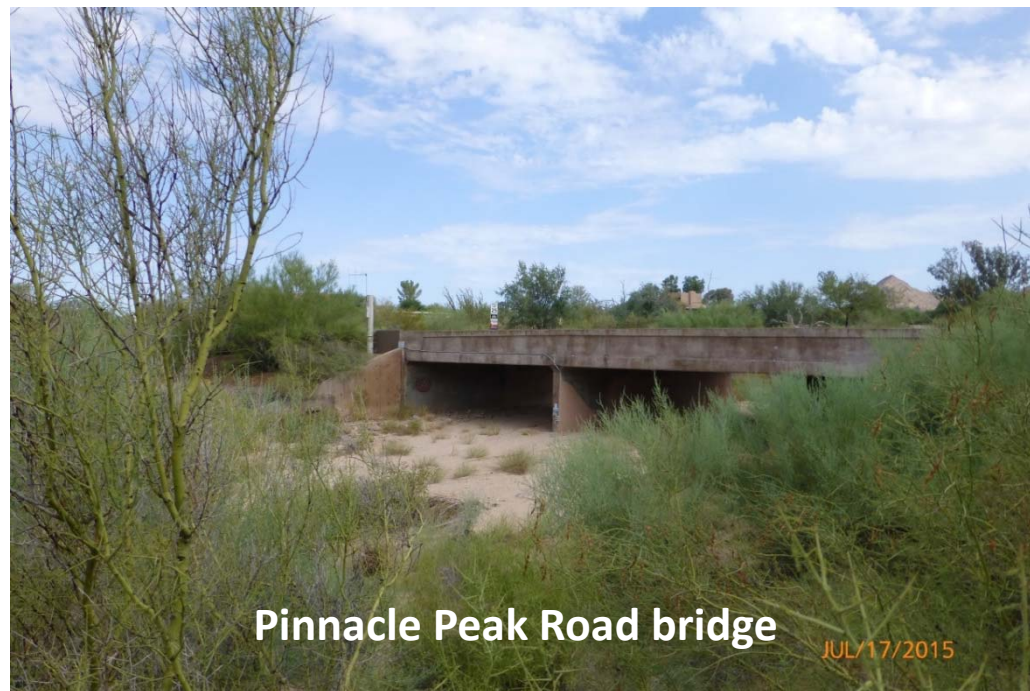
# Storm of September 8, 2014

## 6 Hour Rainfall Return Periods



**Q:** *How much water is expected to flow at the top of Reata Wash during a 100-year flood?*

Measured  
in cubic  
feet per  
second  
(CFS)



Pinnacle Peak Road bridge

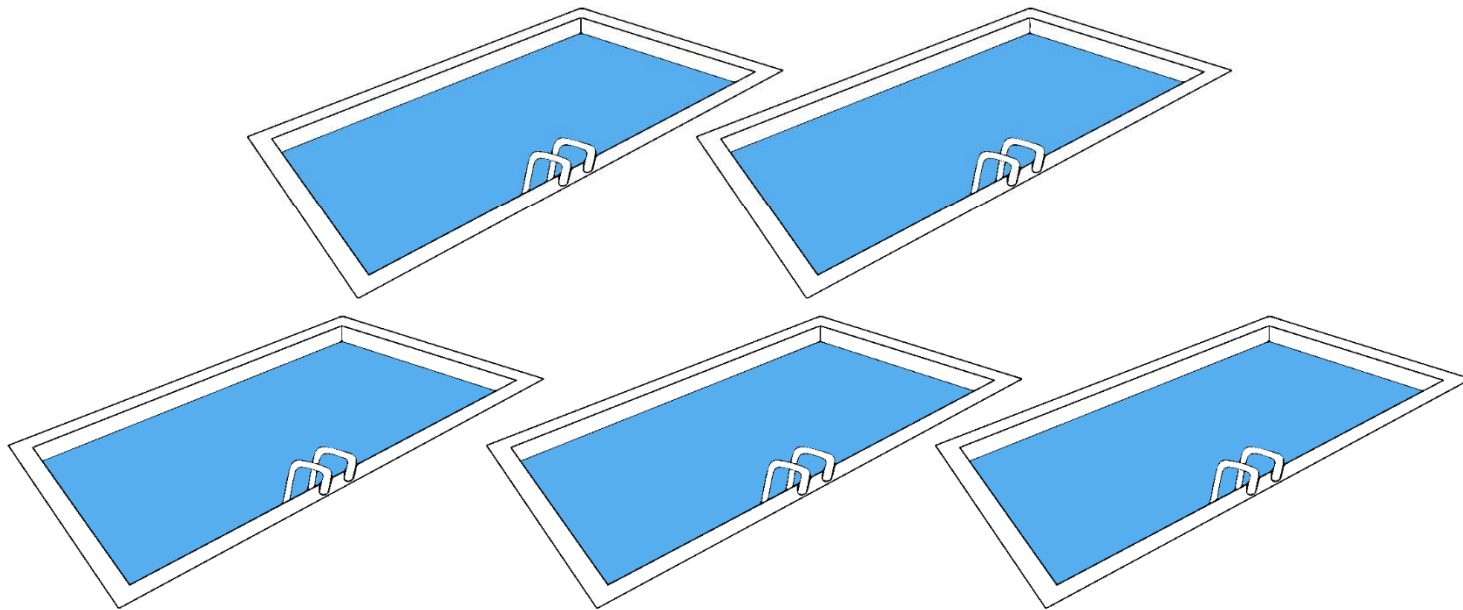
JUL/17/2015

***How much water is expected to flow at the top of Reata Wash during a 100-year flood?***

- A. 800 csf
- B. 1,200 csf
- C. 6,800 csf
- D. 13,000 csf
- E. 18,000 csf
- F. 23,500 csf

**A: 13,000 cfs**

**5 SWIMMING POOLS**  
every **SECOND**



**Q:** *Approximately how many buildings do you think are in the floodplain?*

- Includes homes, businesses, schools, fire stations, post offices, hospitals, etc.



***Approximately how many buildings do you think are in the floodplain?***

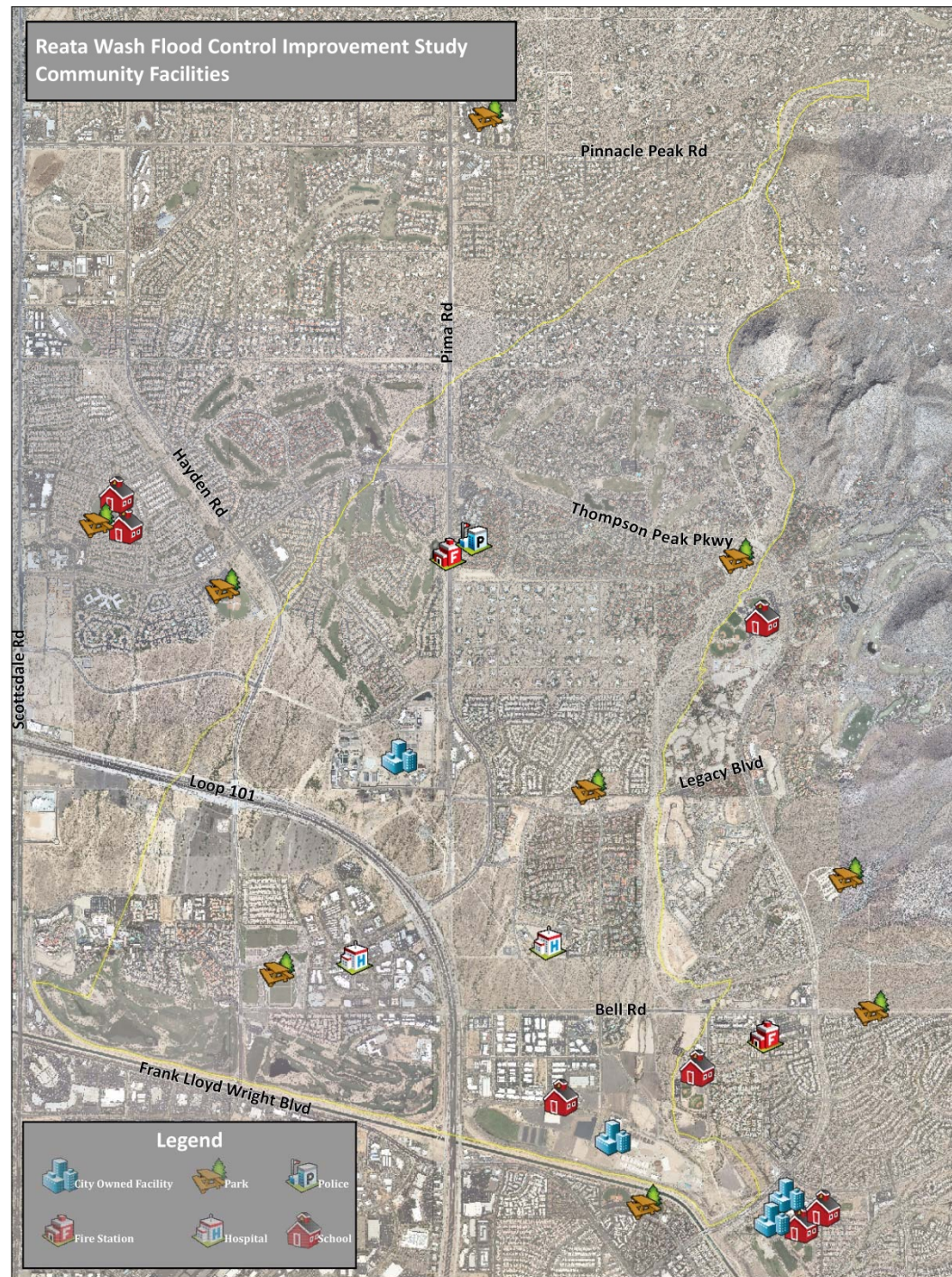
- A. 750
- B. 2,800
- C. 4,600
- D. 8,300
- E. 10,000



# A: 4,600 Structures

Some of these include:

- 3,200 homes
- 229 multi-family
- 7 schools
- 2 fire stations
- 2 hospitals
- 1 police station
- 4 city owned facilities
- 8 parks



# The Power of Floodwater



- Videos taken by Scottsdale property owner and provided to City

# Estimated Cost of Flood Damage

## DAMAGE COST

\$41,840	\$78,300	\$104,440	\$125,760	\$136,200
				
<b>1"</b> Depth of Water	<b>6"</b> Depth of Water	<b>12"</b> Depth of Water	<b>24"</b> Depth of Water	<b>36"</b> Depth of Water
<ul style="list-style-type: none"> <li>• Flooring</li> <li>• Carpeting</li> </ul>	<ul style="list-style-type: none"> <li>• Baseboards</li> <li>• Drywall</li> </ul>	<ul style="list-style-type: none"> <li>• Electrical Outlets</li> <li>• Computers</li> </ul>	<ul style="list-style-type: none"> <li>• Furniture</li> <li>• Cabinets</li> </ul>	<ul style="list-style-type: none"> <li>• Appliances</li> <li>• AC / Furnace</li> </ul>

\* Damage estimates based on national average flood damage. (source: floodsmart.gov). From 2010 to 2014, the average flood claim amounted to nearly \$42,000. (source: fema.com).

ESTIMATED COST OF FLOODING [ 4,000 sq.ft. HOUSE ]

# Flood Damage



*Desert Mountain subdivision  
\$250k storm damage – Aug. 2014 storm*

# Flood Damage



*Desert Mountain subdivision*

# Flood Damage



*Sandflower subdivision*

**Q:** *Approximately how much do property owners in Scottsdale pay annually for flood insurance premiums?*

*Flooded pool area*



***Approximately how much do property owners in Scottsdale pay annually for flood insurance premiums?***

- A. \$150,000
- B. \$750,000
- C. \$2 Million
- D. \$4 Million
- E. \$10 Million



# A: \$ 4 Million

- The total annual premiums paid by Scottsdale policyholders: \$4,047,883\* annually
- The total coverage: \$2.3 billion\*
- 35% of these policies are for properties in the Reata Wash floodplain<sup>+</sup>
  - 3,052 policies, \$1.8 million in premiums

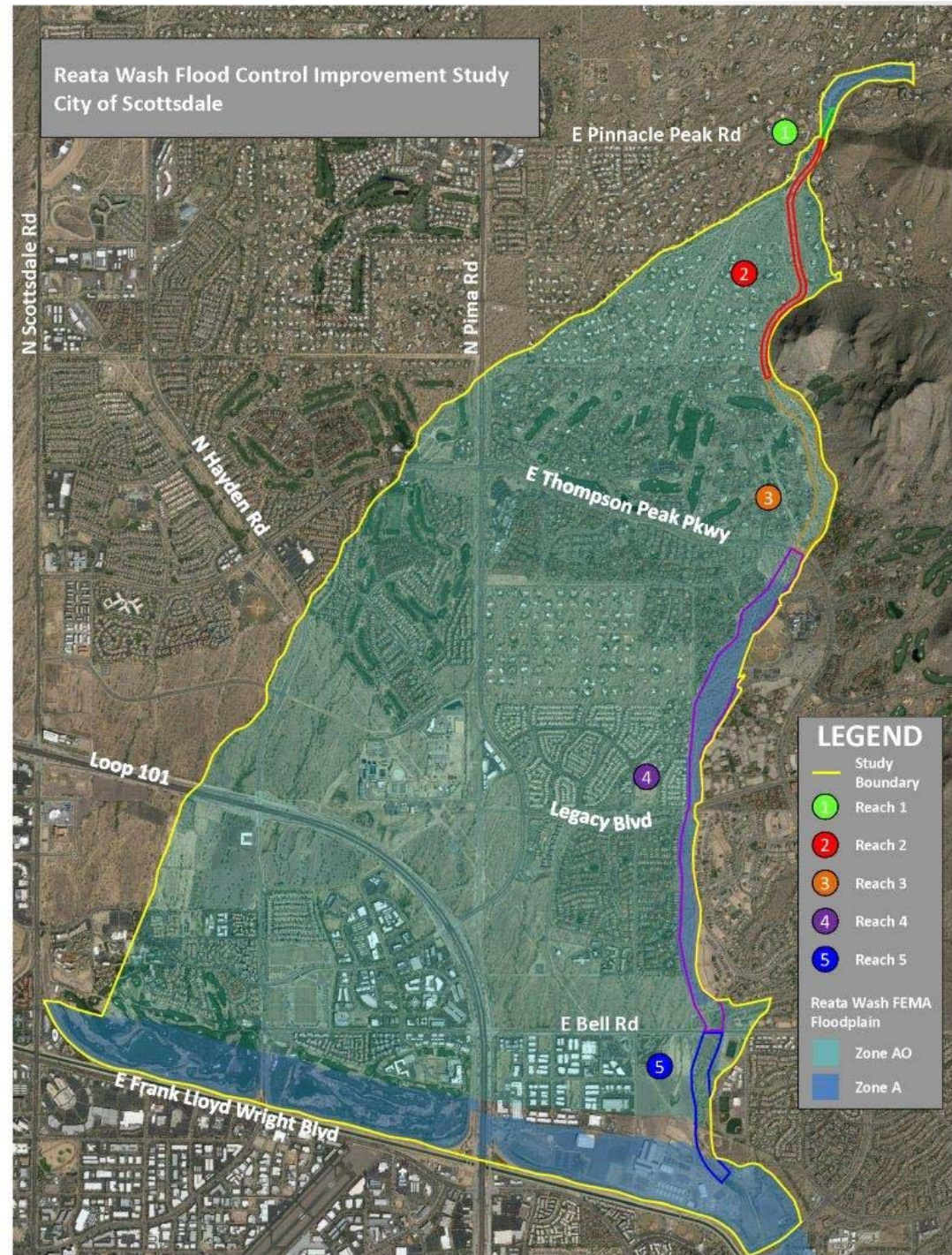
\*Data as of May 15, 2015 for 8,798 policies  
per FEMA records

<sup>+</sup> Source: Flood Control District of Maricopa County  
based on 2012 flood insurance data from FEMA



# Study Corridor

- Need holistic solution for entire drainage corridor
- Has to connect to protect everyone



# Reach 1



**Pinnacle Peak Bridge**



# Reach 2



**Foothills Drive Culvert**



# Reach 3



**Thompson Peak Parkway bridge**

# Reach 4



**Culvert**



**Bell Road Bridge**

# Reach 5



**Dike 4 – East of WestWorld**

## Reach 11 Basin



# Flood control can look like this



**Buried bank protection  
South of Thompson Peak Parkway – east bank**



...and this



**Bell Road levee**

JAN/ 7/2016

...and this



**Flood wall along Reata Wash upstream  
of Pinnacle Peak Road**

DEC/ 9/2015

...and this



**Thompson Peak Parkway bridge**

# Yes, and even this



**DC Ranch Market Street**

**Q:**

***How important is it for the City to develop potential alternatives to reduce flooding risks in Reata Wash and remove FEMA flood insurance requirements?***

*Property flooding,  
Sandflower subdivision*



***How important is it for the City to develop potential alternatives to reduce flooding risks in Reata Wash and remove FEMA flood insurance requirements?***

- A.** Very Important
- B.** Somewhat Important
- C.** Not Important
- D.** Very Unimportant
- E.** Don't Know

# Reata Wash Study - Next Steps

- Conduct technical and environmental analysis
- Develop alternatives within the corridor
- Input from community on alternatives
- Present alternatives to City Council for consideration and possible action
- If approved, funding would need to be identified for a project

**Stormwater Damage  
Desert Mountain Golf Course Clubhouse  
Photo taken June 2015**



**Q:** Text your questions or complete question card.....





# Reata Wash Flood Control Study

## Thank YOU!

- [www.scottsdaleaz.gov](http://www.scottsdaleaz.gov)
  - Search "Reata"
- Phone: 480-312-7328