

Flood Inundation Mapping and City Preparedness For Next Flood

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October 19, 2016



Austell Public Works
STORMWATER
Management

BRIEF

Historic Flood - September 21, 2009

- 21 inches rainfall
 - Historical crest at 30.80 feet
- Water Flow
 - September 22, 2009: 28,000 cubic feet per *second*
 - Average daily flow: 32 cubic feet per *second*
- 696 homes flooded and displaced residents

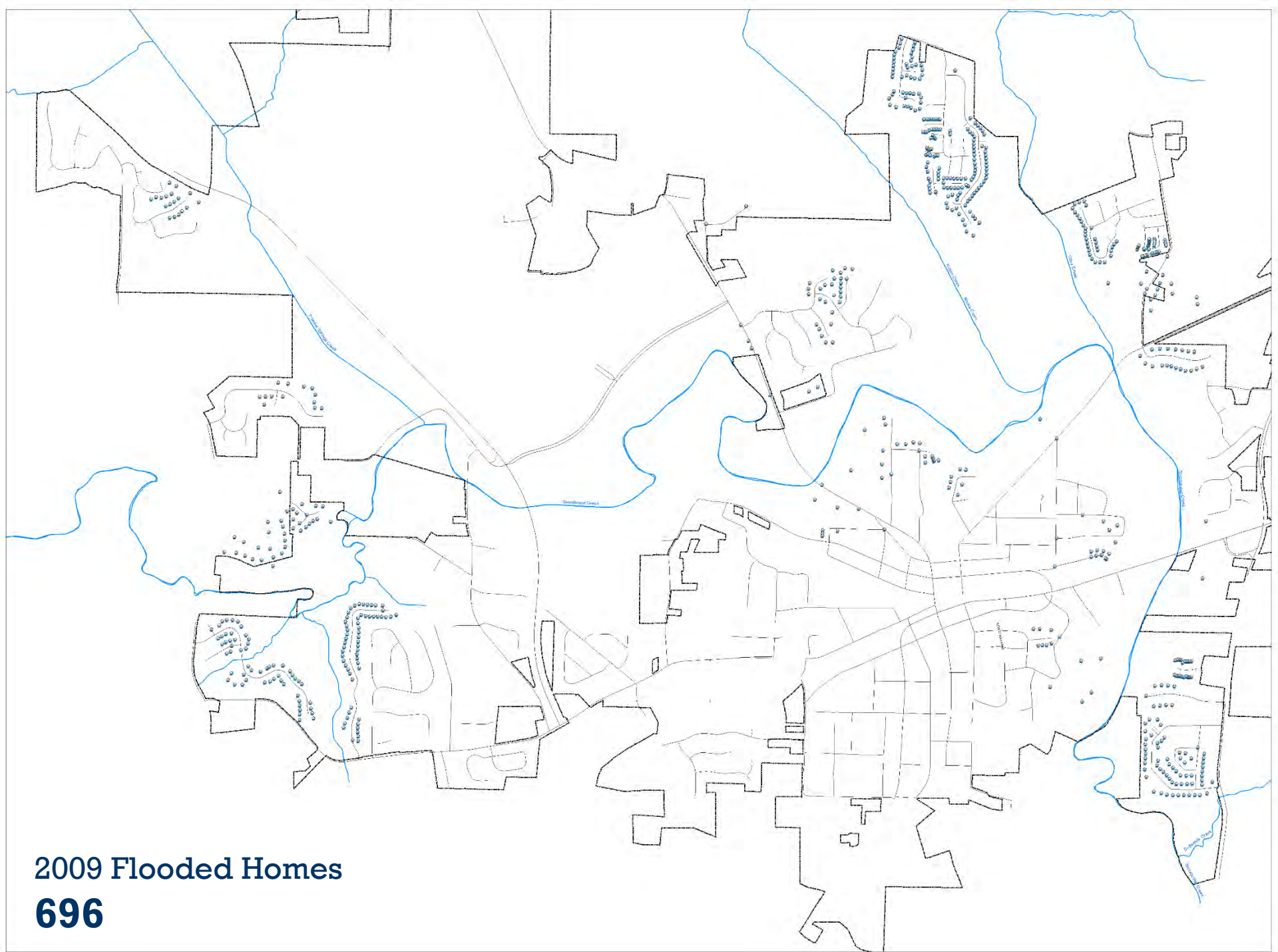




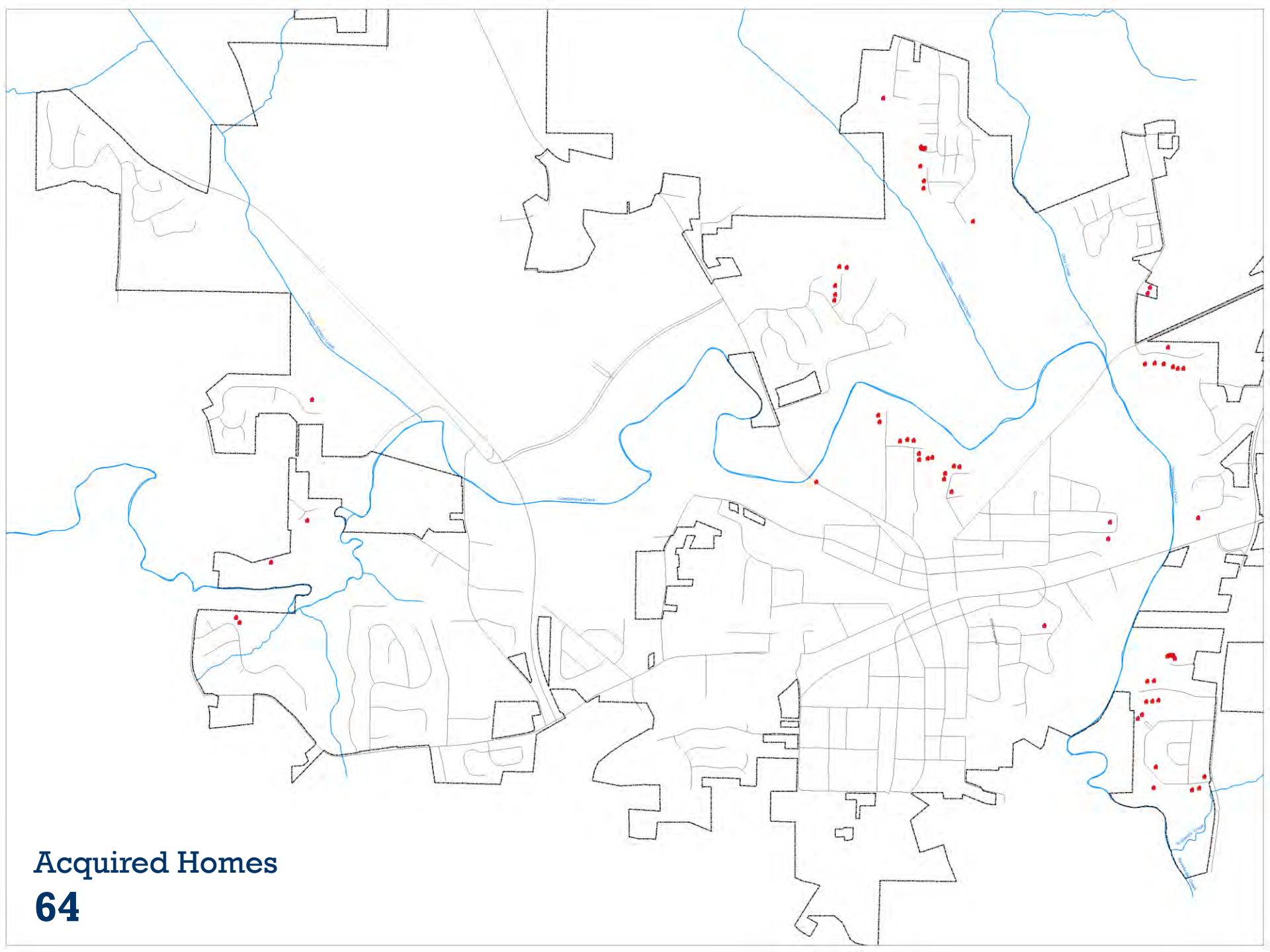
HAZARD MITIGATION GRANT PROGRAM

- In 2014, acquired 19 Homes: \$2,061,297.13
- 9 to be acquired in 2015 (proposed acquisition from pre- and post-flood owners)
- Total acquired (inception to date): 61





2009 Flooded Homes
696



Acquired Homes
64

Acquisition and Demolition

- Total Project Cost as of May 31, 2015 is \$7,316,565.07
 - Federal Emergency Management Agency (75%) \$ 5,487,423.80
 - Georgia Emergency Management Agency (10%) \$ 731,656.51
 - Local - City of Austell (15%) 1,097,484.76
- Local share was allocated between the City and individual property owners
 - City of Austell \$ 158,424.44
 - Property Owners \$ 939,055.32

Represents 2.17%

Acquisition and Demolition



- Structure Completely Washed of Foundation
- Floated Downstream Approximately 360 Feet
- Located in floodway



Acquisition and Demolition



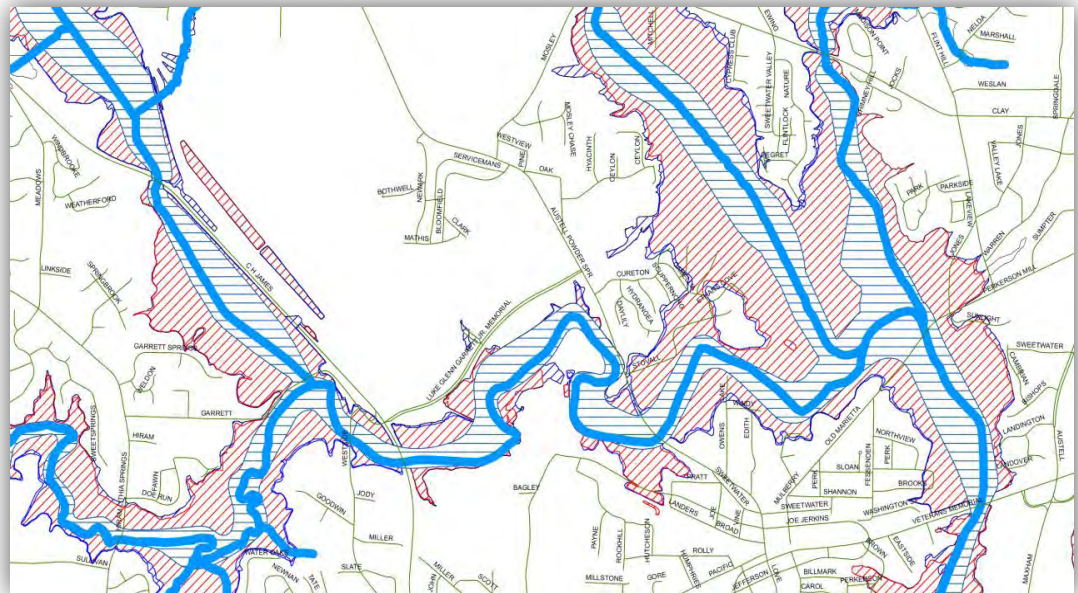
- Increased velocity due to proximity of Sweetwater Creek

FLOODPLAIN STATISTICS

Stream Miles: 11

AE Zone: 1,067 acres
(Special Flood Hazard Area)

X Zone: 2,766 acres
(Outside Floodplain)



NEW TOOLS

Stream Gages

- Entering and Leaving City
 - 02336910 - Caraustar at Railroad Bridge
 - 02337000 - Blairs Bridge Road, Douglas County

Stream Camera

- Austell-Powder Springs Road at Sweetwater Creek
 - Receives data based on gage located at Caraustar



NEW TOOLS

Flood Inundation Mapping

- Translate flood data into operational maps that relay risk and consequences of current and forecasted flooding
- Boundaries show estimate based on water stages

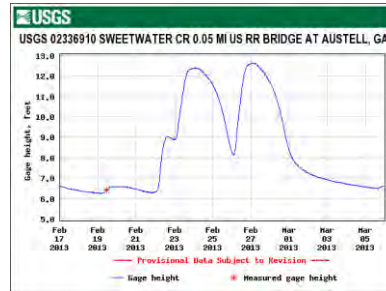
National Weather Service Forecasts

- Uses forecast models to estimate the quantity and timing of water flowing through selected stream reaches
- Up to five days in advance to allow for proper notification and evacuation planning

HOW DO THESE TOOLS TALK TO ONE ANOTHER?

Available Tools

for Floodplain Management and Emergency Managers



LIVE TOOLS



SWEETWATER CREEK
LIVE WEBCAM



FLOOD INUNDATION
MAPPING



Inundation Mapping

Stream Camera and Gage Height

HOW DO THESE TOOLS TALK TO ONE ANOTHER?

Real Time Data Combined with Forecast

Determines Current and Forecasted Level of Inundation

- 21 levels of inundation (12 feet to 32 feet)
- Flood stage 32 greater than 2009 flood levels

HOW IS THE CITY USING THESE TOOLS?

Emergency Preparedness



Identify
Properties
at Risk

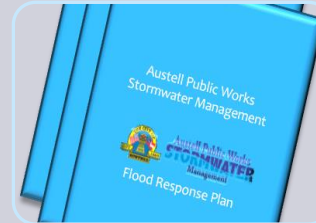


Critical
Facilities



Road
Closures

Evacuation
Routes



Response
Plan



Detailed
and/or
Specific
Warnings

FLOOD INUNDATION RESPONSE LEVEL 12

Roadways at Risk:

- Brooks Drive (Lower End of Loop)
- Jones Road (Perkerson Mill Road to Duplex)
- Stovall Road (All)

Properties at Risk:

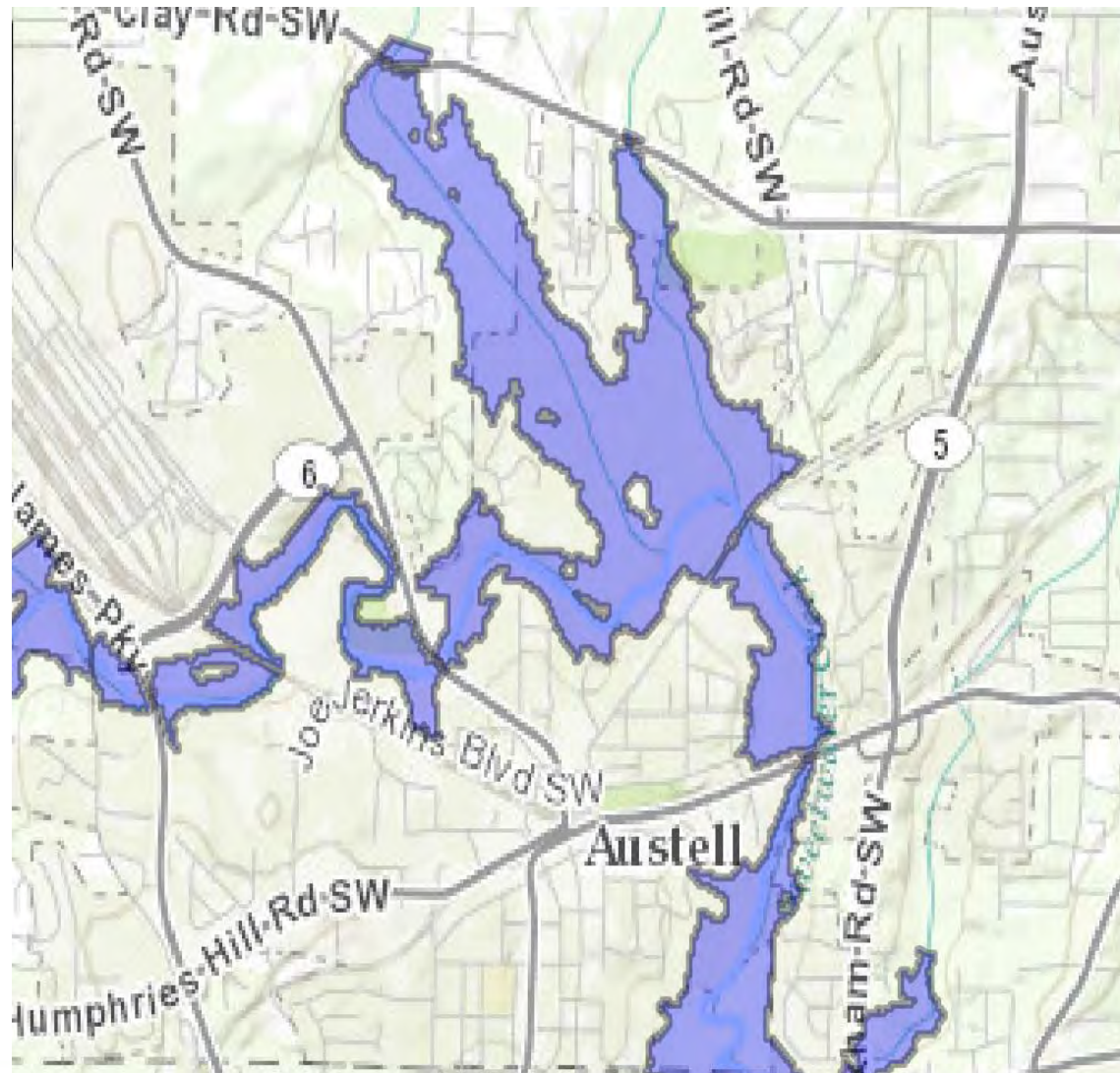
- Davis Circle (2505, 2545, 2555, 2559)
- Red Cloud Court (1406, 1404)
- Maxham Road (5840, 5810)
- Perkerson Drive (2998, 5480, 5506, 5510)

Critical Facilities at Risk:

- None

Alternate Routes:

- Brooks Drive (Shut Down at Loop)
- Jones Road (Flint Hill Road and/or Perkerson Mill Road to Austell Road)
- Stovall Road (Shut down at Austell-Powder Springs Road and Autumn Brook Subdivision)



FLOOD INUNDATION RESPONSE LEVEL 14

Roadways at Risk:

- Brooks Drive (Lower End of Loop)
- Jones Road (Perkerson Mill Road to Duplex)
- Stovall Road (All)
- Perkerson Mill Road (Culvert at Horse Farm)
- Davis Circle (Culvert at Perkerson Drive)

Properties at Risk:

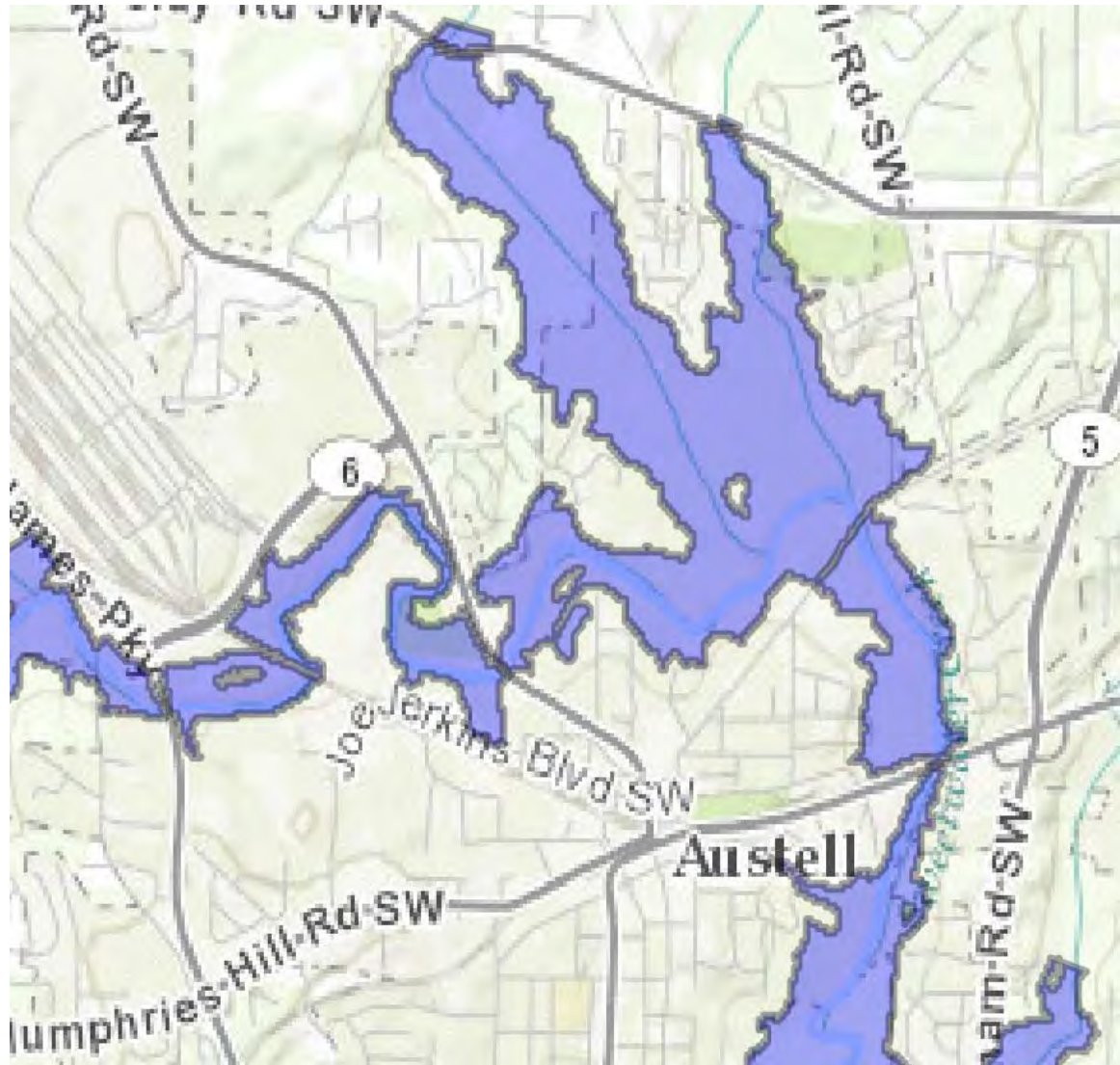
- Davis Circle (2505, 2545, 2555, 2559)
- Red Cloud Court (1406, 1404)
- Maxham Road (5840, 5810)
- Perkerson Drive (2571, 2581, 2998, 5480, 5506, 5510)
- Pontiac Circle (1142, 1152, 1166)
- Austell-Powder Springs Road (5653)

Critical Facilities at Risk:

- Not Applicable

Alternate Routes:

- Brooks Drive (Shut Down at Loop)
- Jones Road (Flint Hill Road and/or Perkerson Mill Road to Austell Road)
- Perkerson Mill Road (Flint Hill Road to Austell-Powder Springs Road and/or Perkerson Mill Road to Veterans Memorial Highway)
- Stovall Road (Shut down at Austell-Powder Springs Road and Autumn Brook Subdivision)



HOW IS THE CITY USING THESE TOOLS?

The logo for CODE RED features the word "CODE" in white, bold, sans-serif capital letters on a black rectangular background. To its right, the word "RED" is written in large, bold, red, sans-serif capital letters. A registered trademark symbol (®) is located at the top right of the "D" in "RED".

Rapid Emergency Notification System

Administered by the City of Austell

The logo for CODERED weather WARNING consists of the word "CODERED" in black, sans-serif capital letters, with "RED" in red. Below it, the word "weather" is in a large, black, lowercase, sans-serif font. Underneath "weather", the word "WARNING" is written in red, spaced-out, sans-serif capital letters. To the right of the text is a red and black graphic of a stylized lightning bolt or wave, with a small trademark symbol (™) at its base.

Administered by Cobb County
at no additional cost to the
City of Austell



HOW IS THE CITY USING THESE TOOLS?

CodeRED™

- Rapid Emergency notification service
 - Distributes messages by telephone, text, or e-mail
 - Entire City or target areas
 - 1,000 calls per minute; less than 30 minutes city-wide
 - Flooding, inclement weather, or other natural disaster

CodeRED™ Weather Warning

- Emergency messages are sent by telephone, text, or e-mail
- Advanced warnings received instantly from the National Weather Service in Peachtree City, Georgia

HOW IS THE CITY USING THESE TOOLS?

Staff Training

- Interpreting flood inundation maps
- Departmental training of response plan implementation

Future Emergency Shelter Locations

- Not Simply Located Outside AE Zone

Contact Information

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