

# Colorado Flood Threat Bulletin: Overview and Updates

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*CWCB Water Availability & Flood Task Force Meeting  
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# Outline

- Overview of Colorado Flood Threat Bulletin (FTB)
- 2015 season statistics
- Improvements for 2016

# Colorado Flood Threat Bulletin

## Flood Threat Bulletin

24-hour detailed forecast

## Storm Total Precipitation

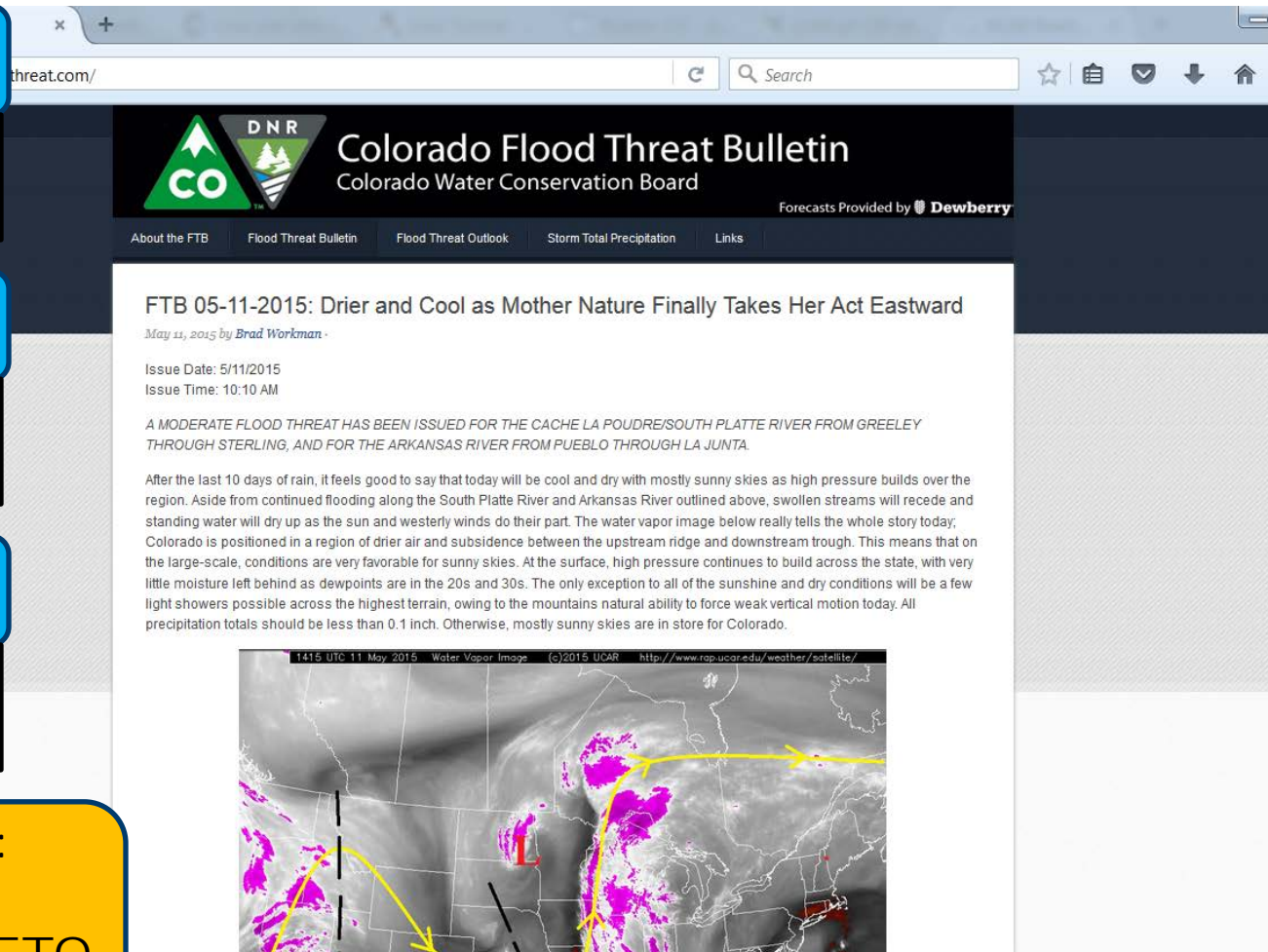
Recap of hydromet over past 24 hours

## Flood Threat Outlook

15-day long-range forecast

### 2015 Updates:

- New website
- "Event-based" FTO
- High-res guidance



The screenshot shows the Colorado Flood Threat Bulletin website. The header includes the Colorado DNR logo and the title "Colorado Flood Threat Bulletin" by the Colorado Water Conservation Board. Forecasts are provided by Dewberry. Navigation links include "About the FTB", "Flood Threat Bulletin", "Flood Threat Outlook", "Storm Total Precipitation", and "Links".

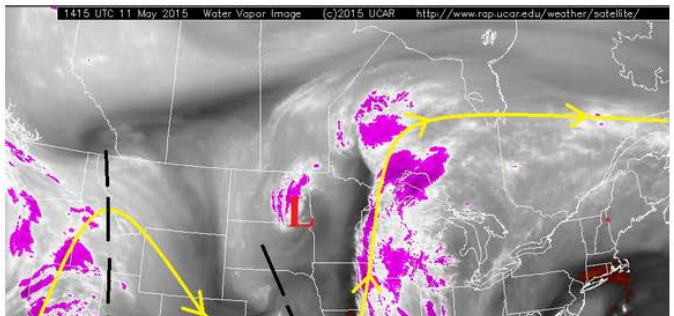
**FTB 05-11-2015: Drier and Cool as Mother Nature Finally Takes Her Act Eastward**  
*May 11, 2015 by Brad Workman*

Issue Date: 5/11/2015  
Issue Time: 10:10 AM

A MODERATE FLOOD THREAT HAS BEEN ISSUED FOR THE CACHE LA POUFRE/SOUTH PLATTE RIVER FROM GREELEY THROUGH STERLING, AND FOR THE ARKANSAS RIVER FROM PUEBLO THROUGH LA JUNTA.

After the last 10 days of rain, it feels good to say that today will be cool and dry with mostly sunny skies as high pressure builds over the region. Aside from continued flooding along the South Platte River and Arkansas River outlined above, swollen streams will recede and standing water will dry up as the sun and westerly winds do their part. The water vapor image below really tells the whole story today; Colorado is positioned in a region of drier air and subsidence between the upstream ridge and downstream trough. This means that on the large-scale, conditions are very favorable for sunny skies. At the surface, high pressure continues to build across the state, with very little moisture left behind as dewpoints are in the 20s and 30s. The only exception to all of the sunshine and dry conditions will be a few light showers possible across the highest terrain, owing to the mountains natural ability to force weak vertical motion today. All precipitation totals should be less than 0.1 inch. Otherwise, mostly sunny skies are in store for Colorado.

1415 UTC 11 May 2015 Water Vapor Image (c)2015 UCAR <http://www.rap.ucar.edu/weather/satellite/>

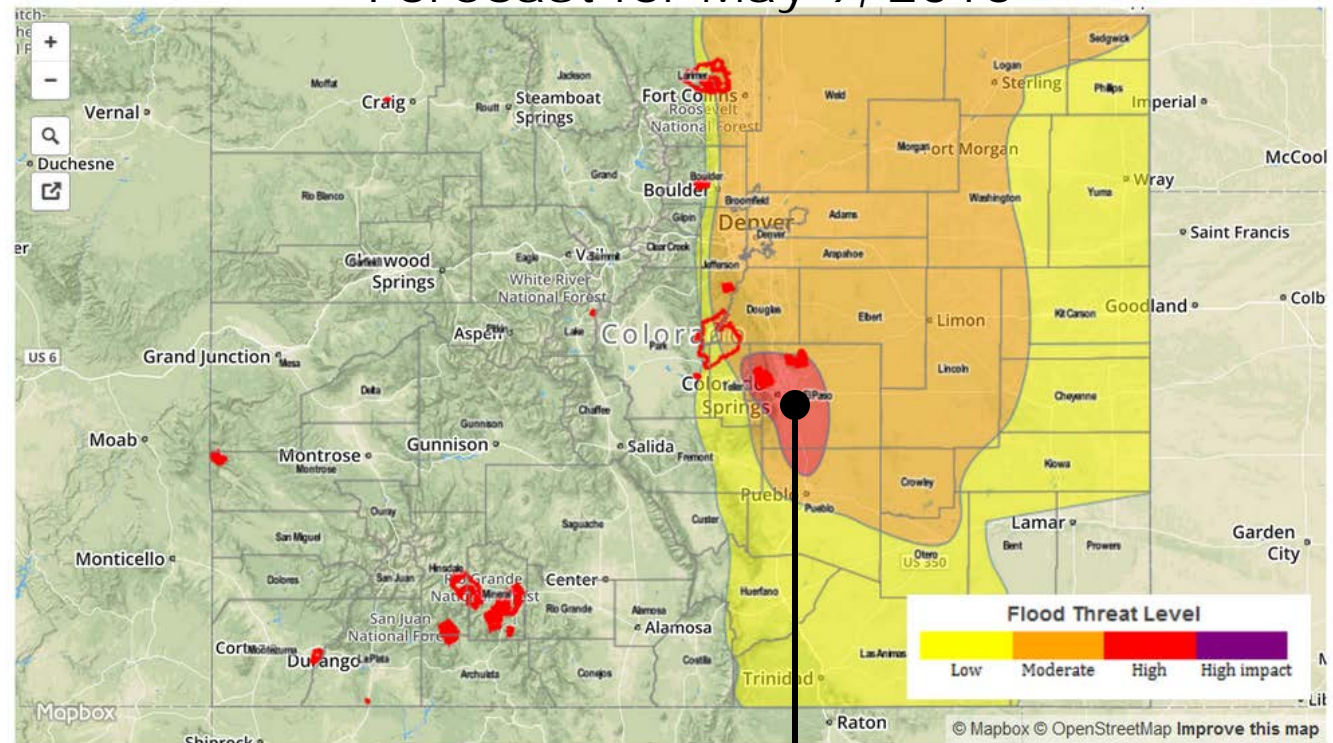


[www.coloradofloodthreat.com](http://www.coloradofloodthreat.com)

# Flood Threat Bulletin

Forecast for May 9, 2015

- Specifies:
  - Location
  - Timing
  - Intensity
  - Confidence
- Includes:
  - Riverine flooding
  - Flash flooding (esp. urban)
  - Snow-melt
  - Drought
- Tools:
  - Processed high-res model guidance
  - Hydromet experience



## Chance of Precip

>90%

## Prime Time

11AM – 1AM

## Discussion

**HIGH flash flood threat:** High antecedent rainfall along with 2-3 inches of additional rainfall will cause widespread street and stream flooding.



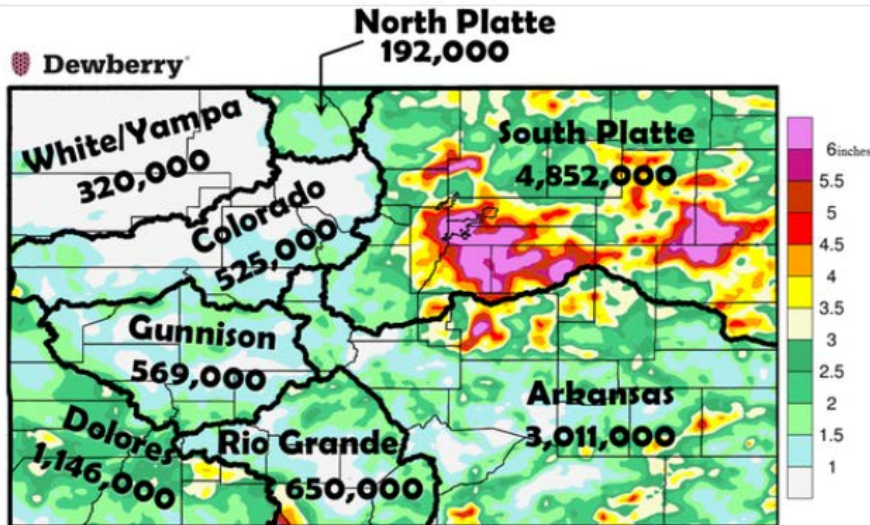
# Social Media

@COFloodUpdates



CO Flood Updates @COFloodUpdates · 9 Jul 2015

South Platte basin wins June 2015 precipitation sweepstakes, but other basins fared well too. #COFlood #COWx



June 2015 Precipitation By Basin, Acre-Feet

5 4



CO Flood Updates @COFloodUpdates · 20 Jul 2015

#FTB Low-to-Moderate #COFlood Threat as Subtropical Moisture Remains. Details: [coloradofloodthreat.com](http://coloradofloodthreat.com) #COWx

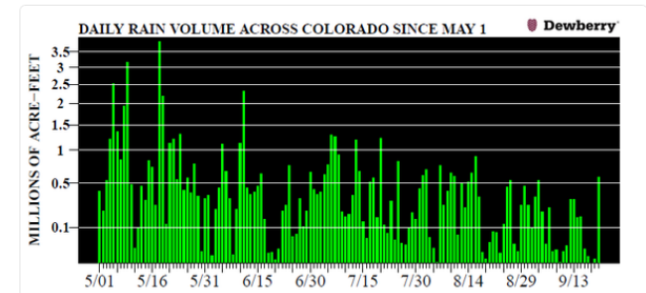


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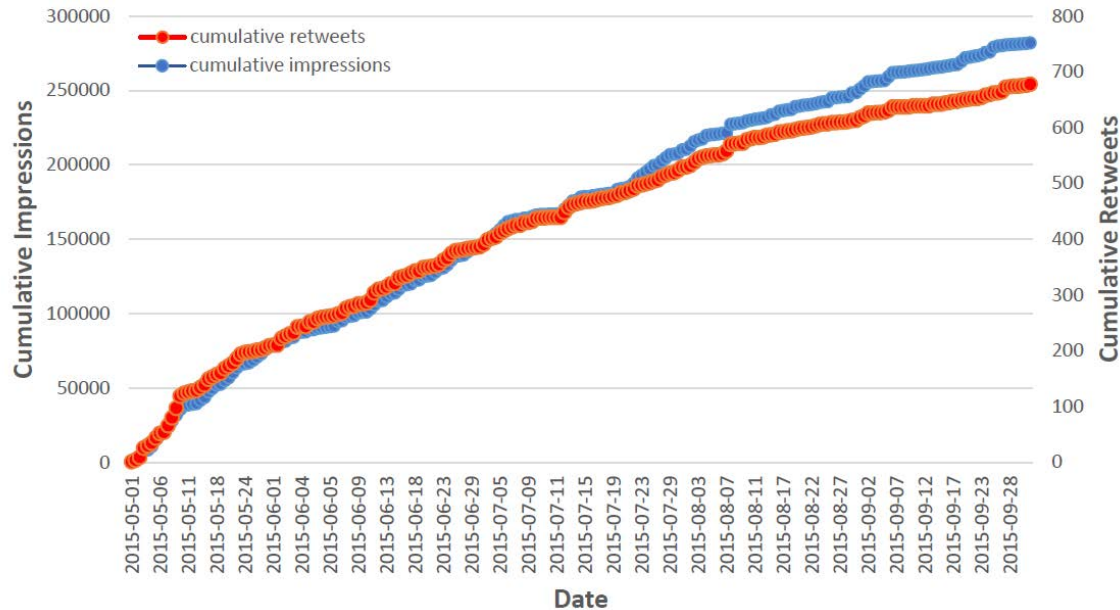
CO Flood Updates @COFloodUpdates · 24 Sep 2015

Interesting to see gradual decrease in daily rainfall across Colorado since May 1st. #COWx #COFlood



4

# Website Usage



❑ 759 Twitter followers (up ~100 from last year)

➤ Of note: CO Emergency Mgmt., Red Cross Denver, CASFM, 3 news stations

❑ 5,068 site visits Jun 1 – Sep 1

❑ 15% increase in website new users

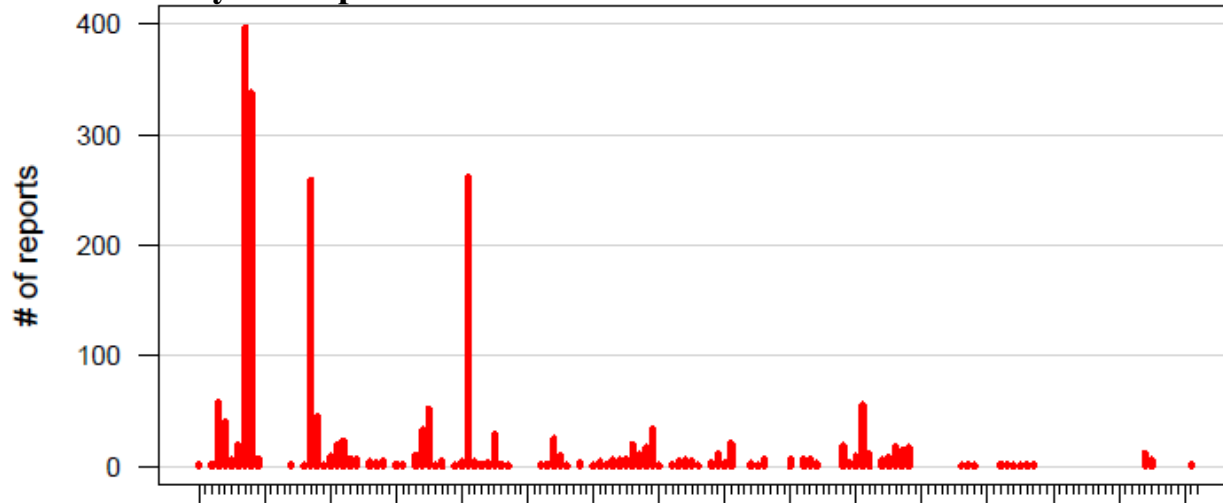


# Outline

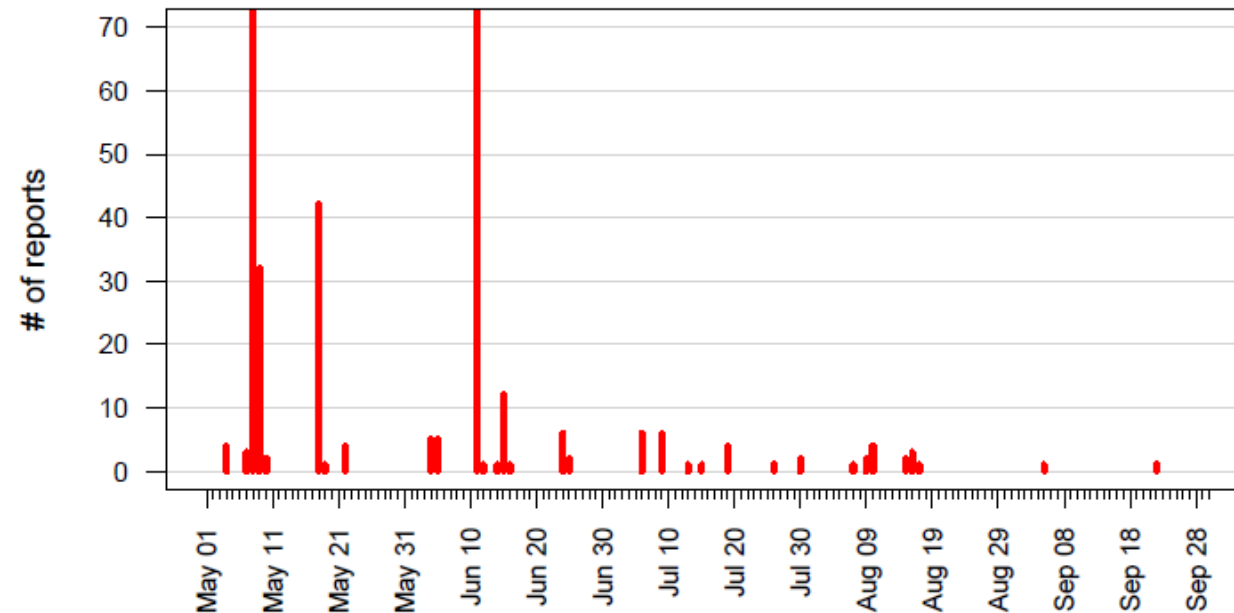
## Recap of 2015

# 2015: Another active season!

May 1 – Sep 31 CoCoRaHS reports > 1 inch



CoCoRaHS reports > 2 inch



## Interesting Statistics

### **Days with 1”+:**

109/153 (71%)

### **Days with 2”+:**

45/153 (29%)

### **Top 5 daily rainfalls:**

1. 7.29 inches

2. 6.51

3. 5.69

4. 4.76

5. 4.74

### **Highest daily area > 1”:**

15,224 sq. mi. (~15% of state)  
on May 18th

### **Days with a flood threat:**

85/153 (56%)



# How did we do?

Dry Day forecasted AND observed

Dry Day forecasted, Flood Day Observed

FORECASTED	OBSERVED	
	DRY DAY	FLOOD DAY
DRY	32%	10%
FLOOD	12%	45%

“Hit” rate

$32\% + 45\% = 77\%$

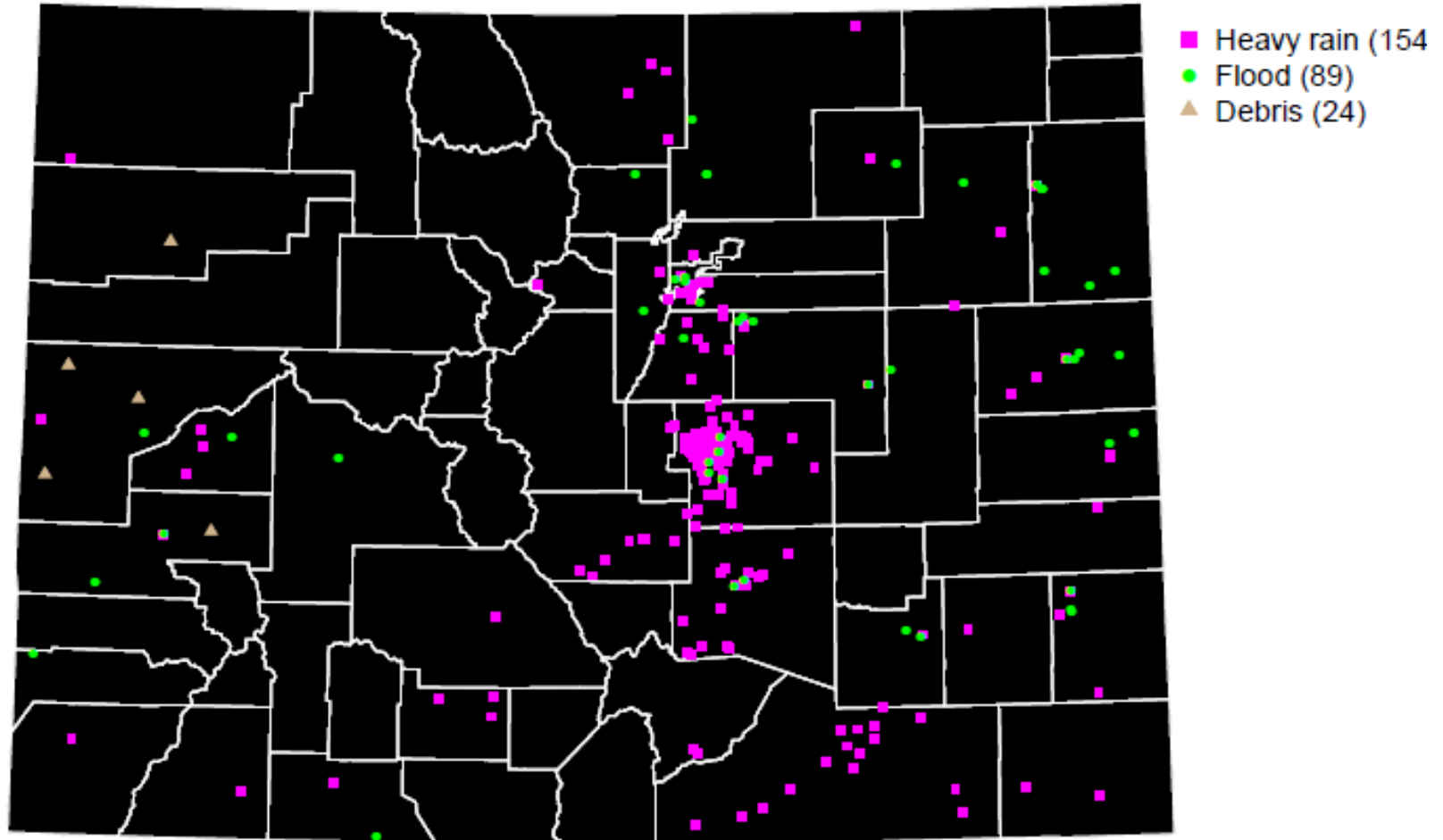
➤ 2014: 76%

Flood Day forecasted, Dry Day Observed

Flood Day forecasted AND observed

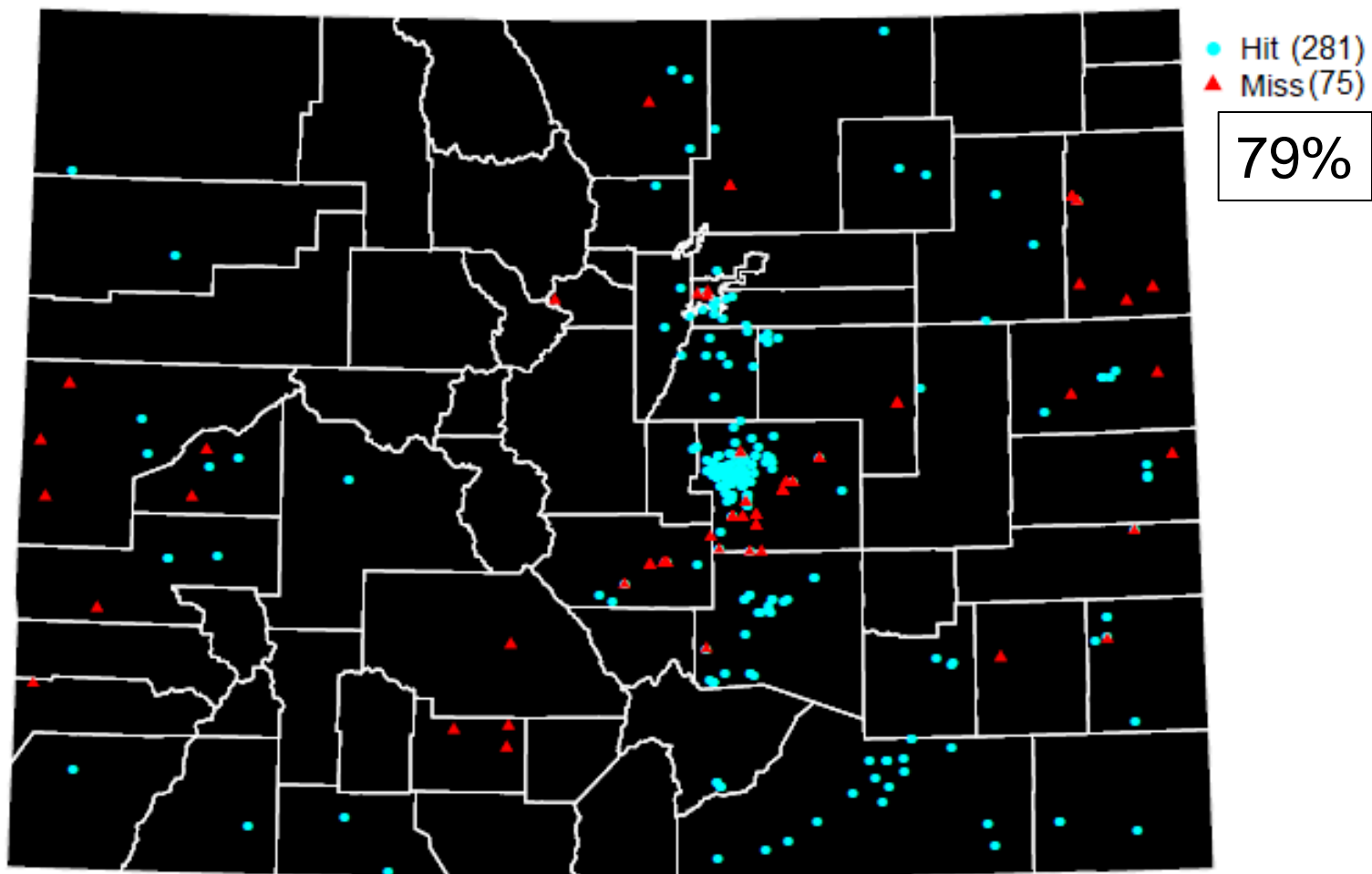
# 2015 Flood-Related Reports (May 1 – Sep 30)

a) All Flood related Reports



# Verification

## b) Flood-Related Report Verification



# Improvements for 2016

QPF Viewer