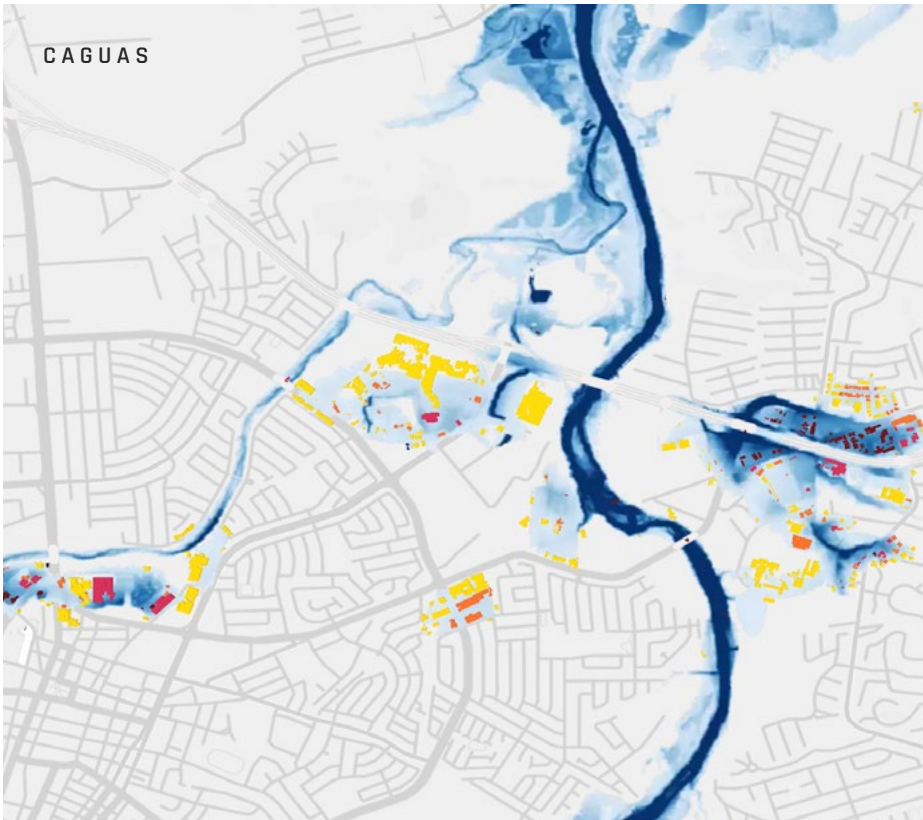# FLOODING FROM HURRICANE FIONA IN PUERTO RICO

DATA RELEASE 5: FLOOD BRIEFING SERIES POWERED BY MULTISOURCE DATA ANALYSIS LEVERAGING ICEYE SATELLITE IMAGERY

ICEYE
FLOOD SOLUTIONS

CAGUAS

53.2 SQ MI (137.8 KM²)
total flood extent

5.87 FT (1.79 M)
average depth at building level

AFFECTED LOCATIONS

Arecibo, Florida, Imbéry, Barceloneta, Guayama, Juana Díaz, Ponce, San Juan, Coco, Salinas

Impact numbers based on initial release of ICEYE's Flood Insights
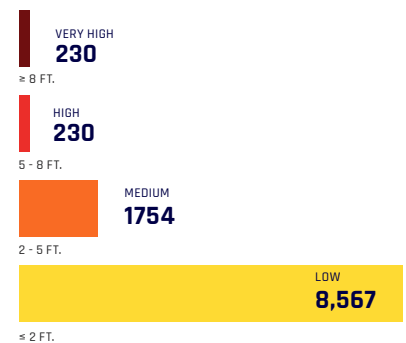
Initially a tropical depression before entering the Caribbean Sea, Fiona strengthened into a hurricane as it moved toward Puerto Rico on September 18th. Over the next 2 days, it brought torrential rains to the island with a widespread 10-20 inches observed and even a couple spots above 30 inches. This led to significant flash flooding and mudslide issues, accentuated by the hilly and mountainous terrain of the island. At least 2 people have died and some 1.000 had to be rescued, while the flooding also caused a complete power outage for the 3.3 million people living on the island. The storm also brought significant impacts to the U.S. Virgin Islands, Dominican Republic, and Turks & Caicos -- and eventually even Atlantic Canada, devastating parts of Nova Scotia and Prince Edward Island.[1]
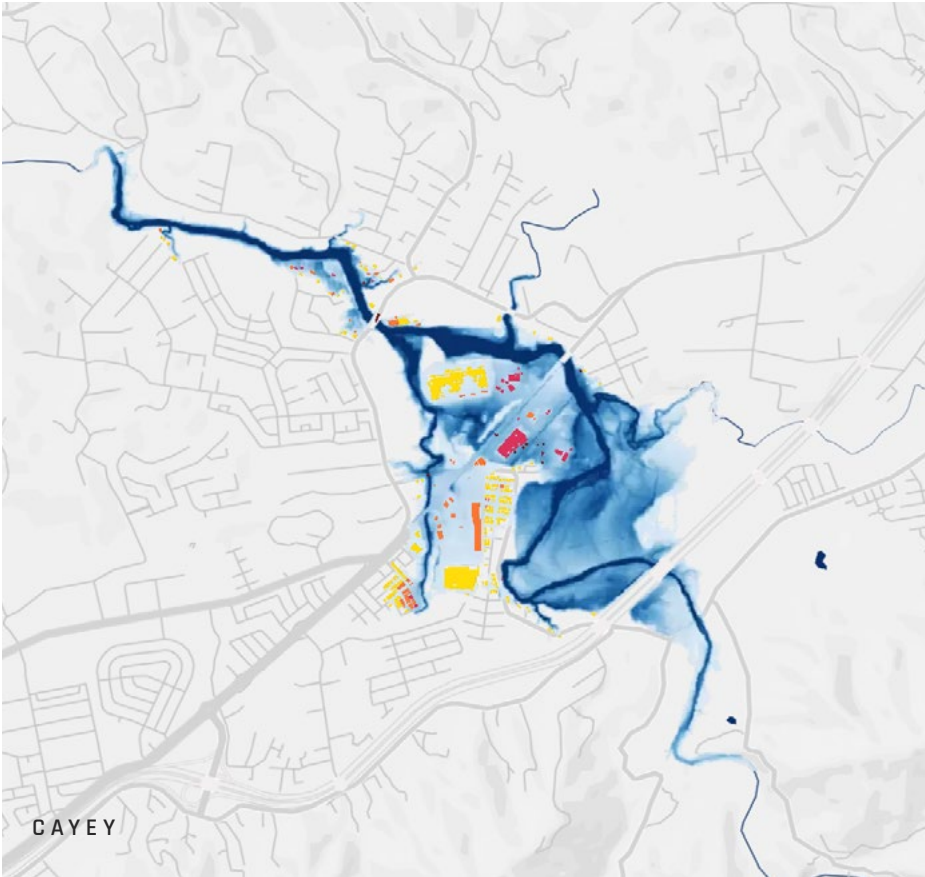
[1] Source: https://www.bbc.co.uk/news/world-us-canada-62947900

START MONITORING	START PEAK FIRST ACQUISITION	FIRST ANALYSIS	END PEAK LAST ACQUISITION	FINAL ANALYSIS
Sept 14th	Sept 18th	Sept 19th	Sept 20th	Sept 23rd

TOTAL NUMBER OF BUILDINGS AFFECTED BY FLOOD WATER DEPTH CATEGORY

EASTERN PUERTO RICO: 10,781

VERY HIGH
230
≥ 8 FT.

HIGH
230
5 - 8 FT.

MEDIUM
1754
2 - 5 FT.

LOW
8,567
≤ 2 FT.

CAYEY

TOA BAJA

Disclaimer: The current analysis is focused on data specific to the regions most affected by the floods. Some areas which have been impacted by the flooding may not be represented in the data.

TALK TO SALES & GAIN ACCESS TO OUR DETAILED ANALYSIS
www.ICEYE.com/flood
▶

TOTAL NUMBER OF BUILDINGS AFFECTED BY FLOOD WATER DEPTH CATEGORY

CAGUAS: 332

VERY HIGH **58** ≥ 8 FT.		
HIGH **27** 5 - 8 FT.		
MEDIUM **69** 2 - 5 FT.		
LOW **178** ≤ 2 FT.		
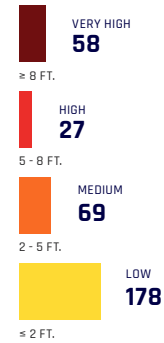
TOTAL NUMBER OF BUILDINGS AFFECTED BY FLOOD WATER DEPTH CATEGORY

CAYEY: 217

VERY HIGH **12** ≥ 8 FT.		
HIGH **22** 5 - 8 FT.		
MEDIUM **49** 2 - 5 FT.		
LOW **134** ≤ 2 FT.		
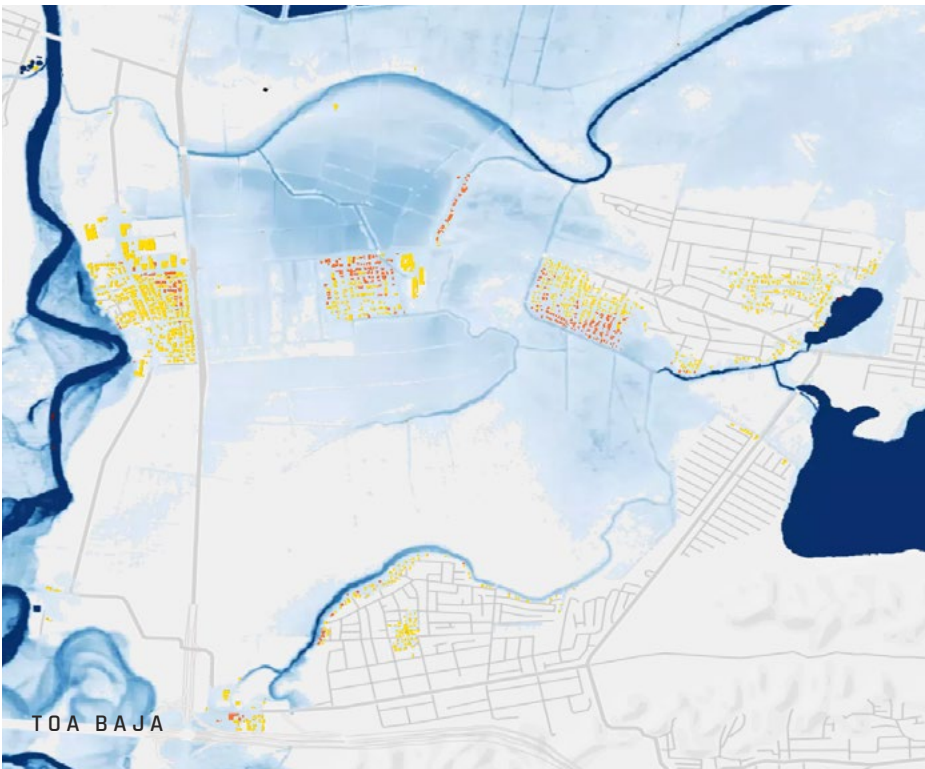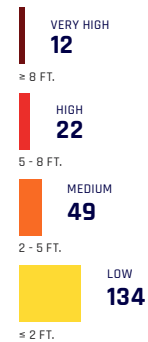
TOTAL NUMBER OF BUILDINGS AFFECTED BY FLOOD WATER DEPTH CATEGORY

TOA BAJA: 1,264

VERY HIGH **8** ≥ 8 FT.		
HIGH **21** 5 - 8 FT.		
MEDIUM **398** 2 - 5 FT.		
LOW **837** ≤ 2 FT.		

Building footprint credit for FEMA's US Structures dataset

ICEYE