CoreLogic

Disaster Recovery Triage:
Assess, Plan, Execute

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THE JUST ECONOMY CONFERENCE 2019

11 Weather and Climate Events with Losses $1+ Billion in 2018

What has CoreLogic seen and learned in the past year?

2018 NATURAL HAZARD REPORT

Hurricanes Florence & Michael

Table 1: Hurricane Florence Residential and Commercial Loss

Peril	Residential and Commercial Total Losses in Billions (U.S. Dollars)
Wind	1 – 1.5
Flood	19 – 28.5
Total	20 – 30

(Source: CoreLogic)

Table 2: Hurricane Michael Residential and Commercial Loss

Peril	Residential and Commercial Losses in Billions (U.S. Dollars)
Wind	2 – 3
Storm Surge (including NFIP)	0.5 – 1

(Source: CoreLogic)

Flood Risk Beyond the Special Flood Hazard Area (SFHA)

Table 5: Residential and Commercial Insured and Uninsured (Storm Surge and Inland)
Flood Loss Estimation for Hurricane Florence ($ Billion)

State	Insured Flood Loss	Uninsured Flood Loss
North Carolina	4.5 – 7.5	10 – 14.5
South Carolina	1 - 2	2.5 – 3.5
Virginia	~ 0.5	~ 0.5
Total	6 - 10	13 – 18.5

(Source: CoreLogic)

59% of properties affected by Hurricane Florence were **outside** the Federal Emergency Management Agency (FEMA) SFHA

Wildfire Activity Continues to Rise

Top 10 Years of Wildfire Burned Acres in U.S. History
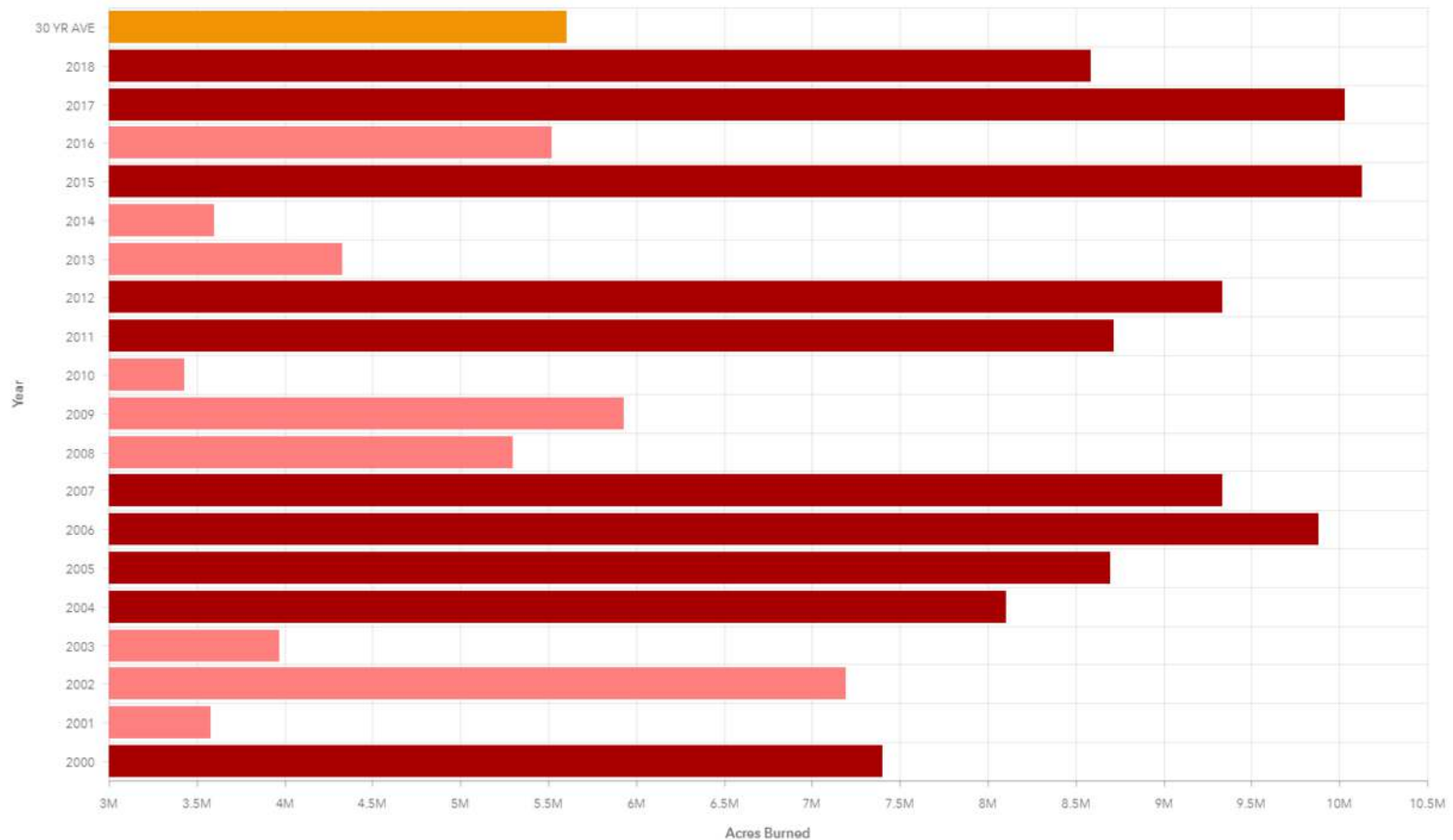
Wildfire Activity Continues to Rise

Table 7: Western States with at Least One Wildfire Greater than 50,000 Acres in Size in 2018 as of November 2018

State	# fires > 50k acres
California	7
Colorado	3
Idaho	4
Nevada	4
New Mexico	2
Oklahoma	2
Oregon	7
Texas	1
Utah	3
Washington	3
Wyoming	1

(Source: GeoMAC Wildland Fire Support; Wildfire Perimeters, 2018)

How can natural catastrophe models be used to assess actual and potential damage?

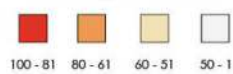# DISASTER ASSESSMENT

Starts with Risk Management

- Community risk managers vs. insurers
- Determine expected loss in advance
- Identify possible events that result in the largest damage
- Maps show how risk differs across an area
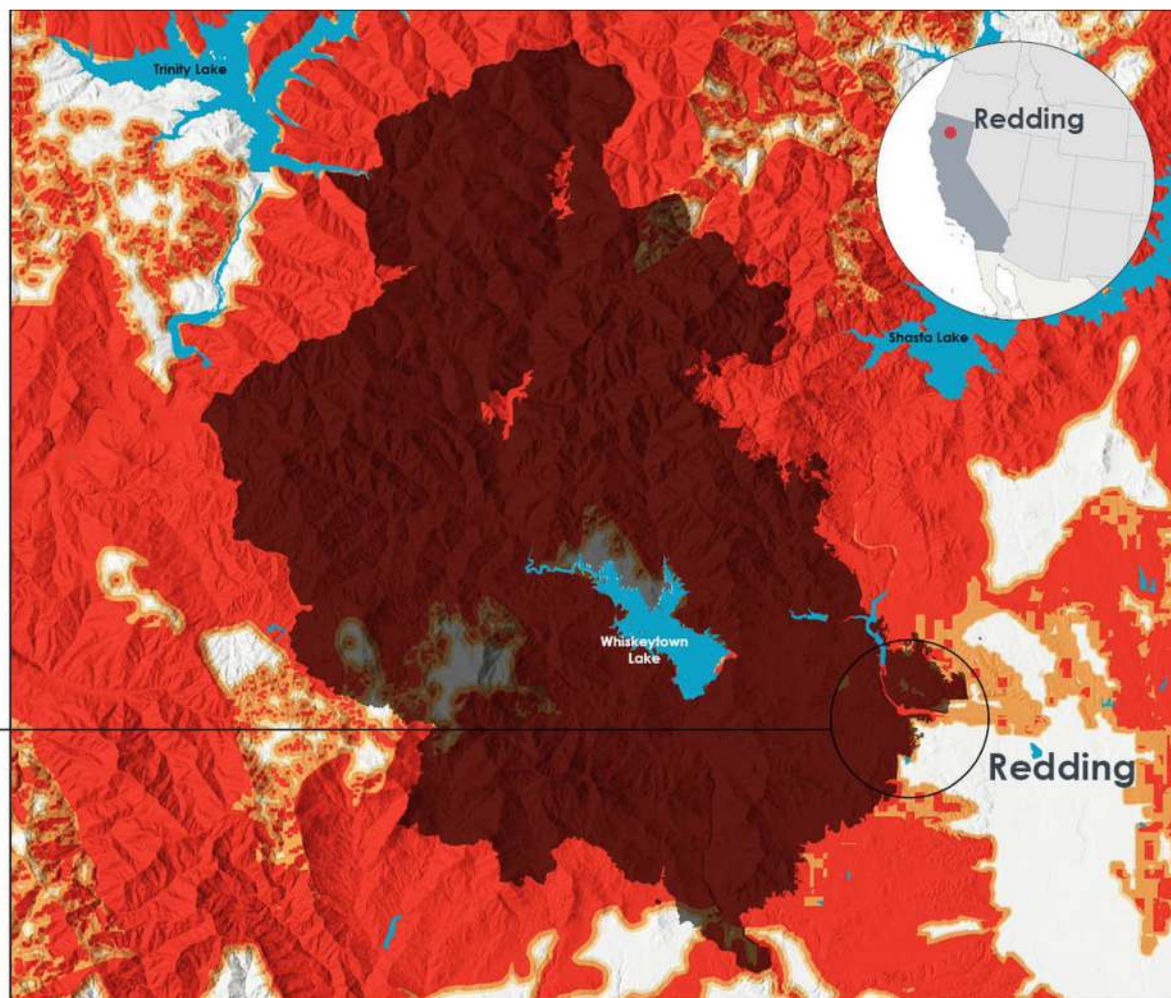
Starts with Risk Management

Carr Fire - California

August 5, 2018

CoreLogic Wildfire Risk Score
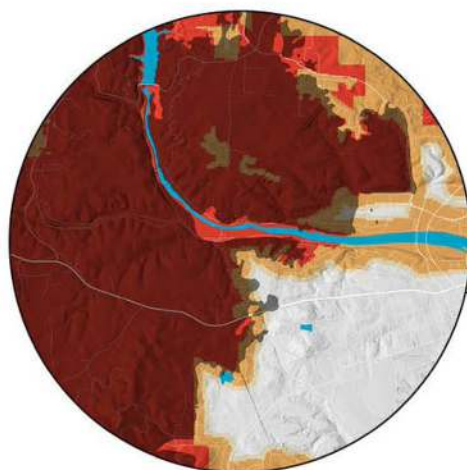
100 - 81	80 - 61	60 - 51	50 - 1

Fire Perimeter

Water

Damage Assessment: Pre-Event
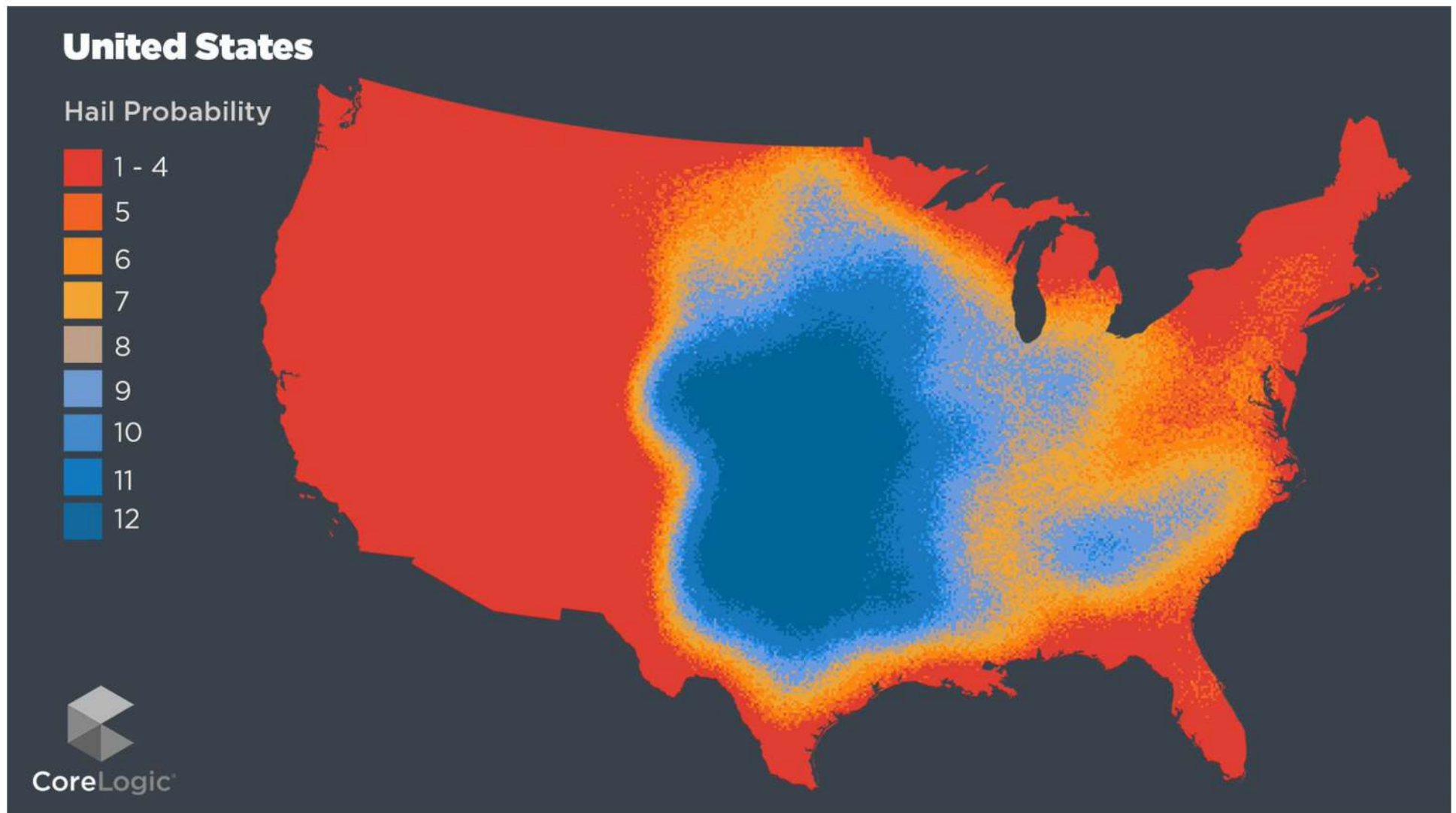
March 11-13, 2019
Washington Hilton Hotel
Washington, DC

THE
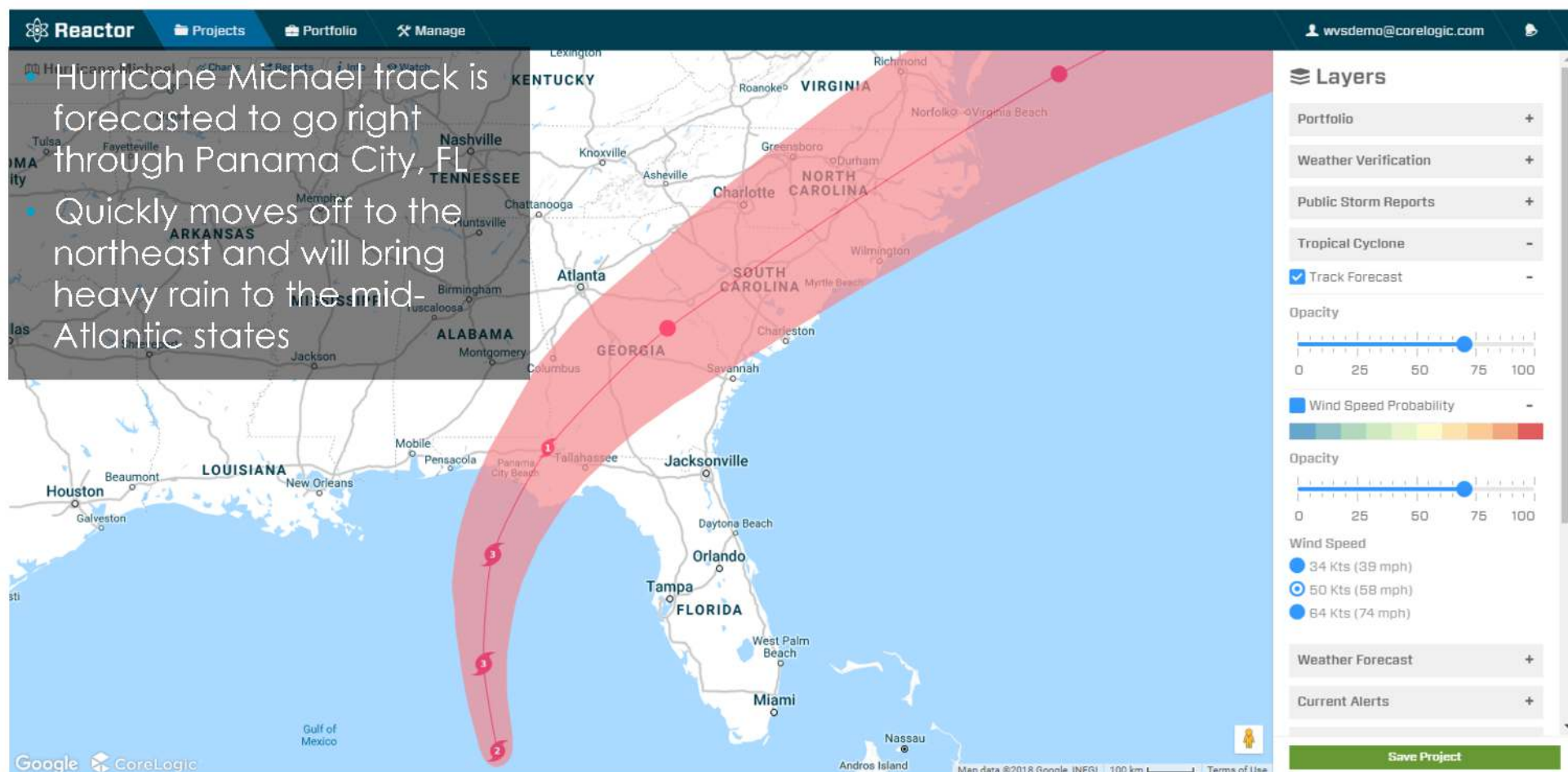JUST ECONOMY
CONFERENCE 2019

Understand Risk

Pre-Event Evaluation

- Estimated storm track
- Wind, surge, precipitation maps based on this

Estimate Damage

- Probabilistic model creates stochastic events
- Compute impact → both areas affected and estimate of damage
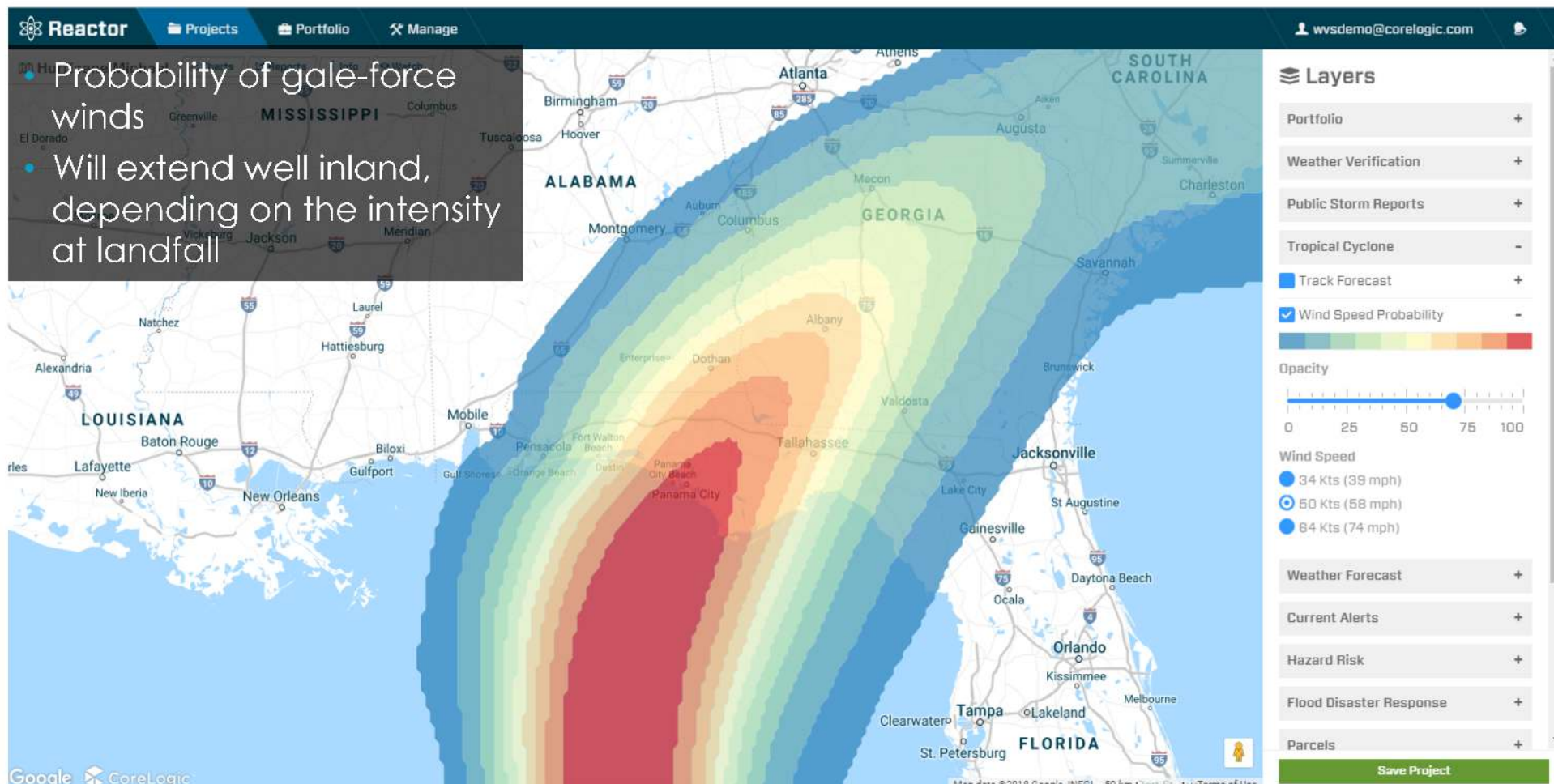
Hurricane Michael: Forecast Track

- Hurricane Michael track is forecasted to go right through Panama City, FL
- Quickly moves off to the northeast and will bring heavy rain to the mid-Atlantic states

Hurricane Michael: Wind Speed Probability

- Probability of gale-force winds
- Will extend well inland, depending on the intensity at landfall

Weather Forensics

- ## During and after: capture event characteristics
  - Satellite images
  - Radar information
  - On-the-ground verification
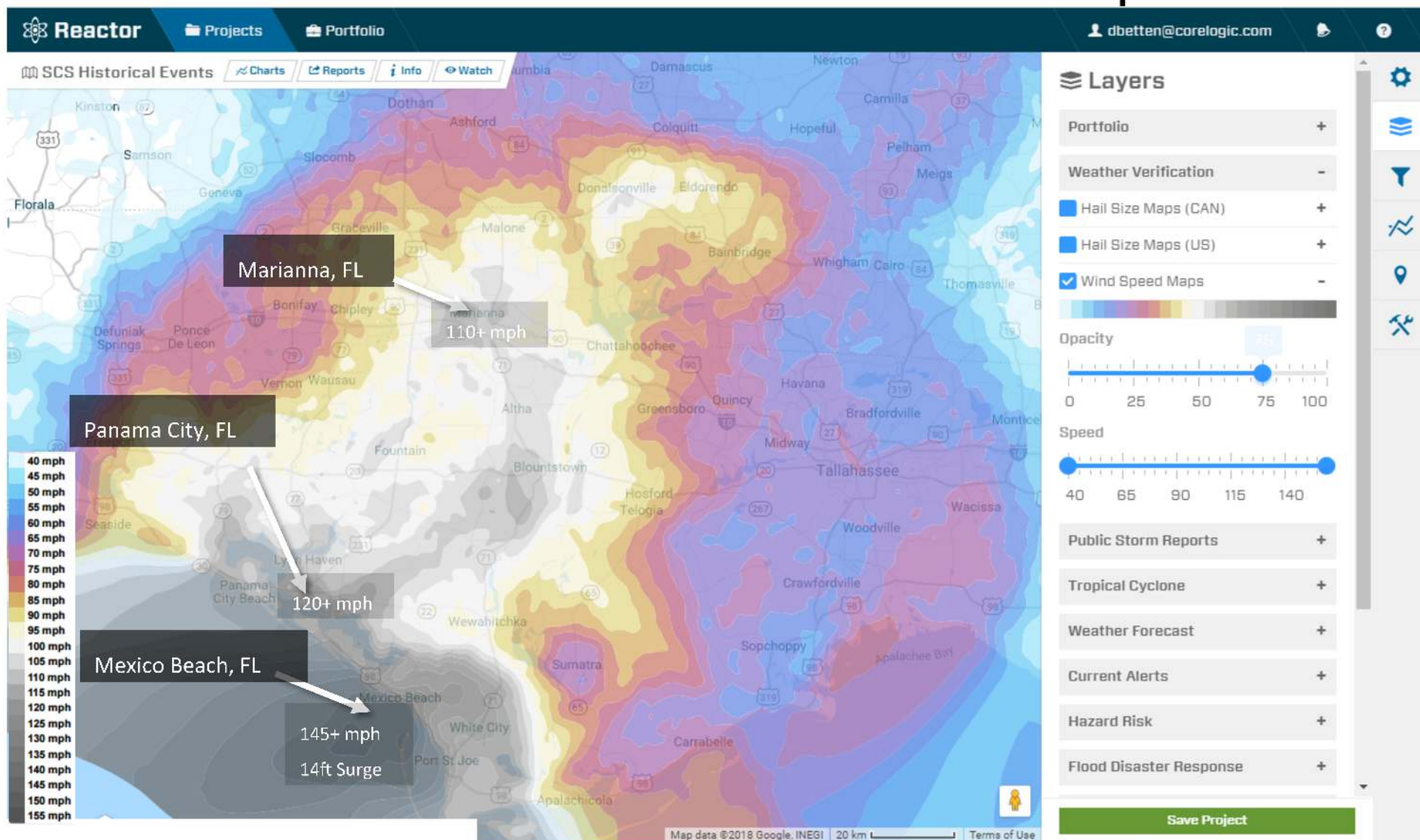
- ## Location-specific knowledge → loss estimation

Hurricane Michael: Wind Speed

Hurricane Michael: Wind Speed

Hurricane Michael Losses

**Hurricane Michael Combined Residential and Commercial Loss
(Wind + NFIP and Non-NFIP Storm Surge)**

	Loss in Billions of Dollars
Florida	$2.5 to $4
Other States*	$0.5 to $1
Total	$3 to $5

Notes: Residential includes Commercial Residential; the bulk of Residential storm surge losses are covered by the NFIP, a government program.

CoreLogic® 2018 Natural Hazard Report

https://www.corelogic.com/insights/
natural-hazard-risk-summary-and-analysis.aspx