



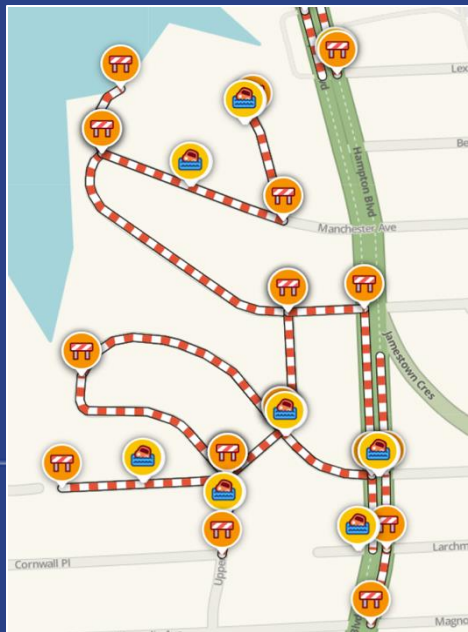
Resilience Innovations

# **INNOVATION IN ACTION: RESHAPING RESILIENCE FOR FLOOD-PRONE COMMUNITIES**

# OUR MODEL:







***Floodmapp received a 5-year sole-source contract with  
the City of Norfolk***

# BY THE NUMBERS:

**180+**

Jobs created  
or retained

**45+**

Novel solutions  
piloted

**\$9M+**

In catalytic  
funding and  
support to  
small  
businesses

**425+**

Trained in climate  
resiliency related  
industries

**400+**

Submissions from 30  
countries

**13**

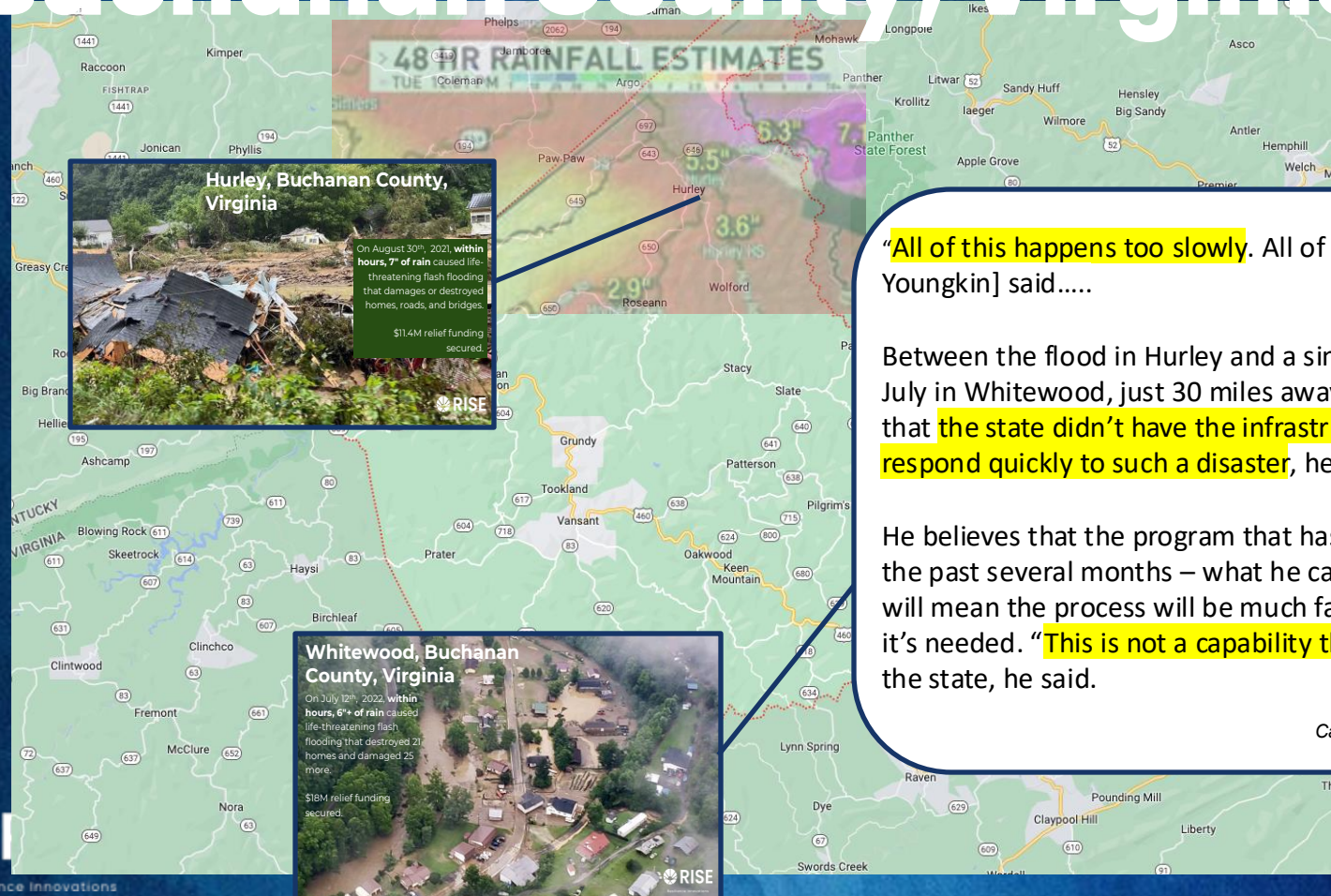
Innovation  
Challenges

**\$50M+**

Raised by  
RISE-funded  
businesses



# Buchanan County, Virginia:



"All of this happens too slowly. All of it," [Governor Youngkin] said.....

Between the flood in Hurley and a similar flash flood this July in Whitewood, just 30 miles away, it became clear that the state didn't have the infrastructure in place to respond quickly to such a disaster, he said.

He believes that the program that has been created over the past several months – what he called a "mini-FEMA" – will mean the process will be much faster the next time it's needed. "This is not a capability that has existed" in the state, he said.

*Cardinal News, October 26, 2022*



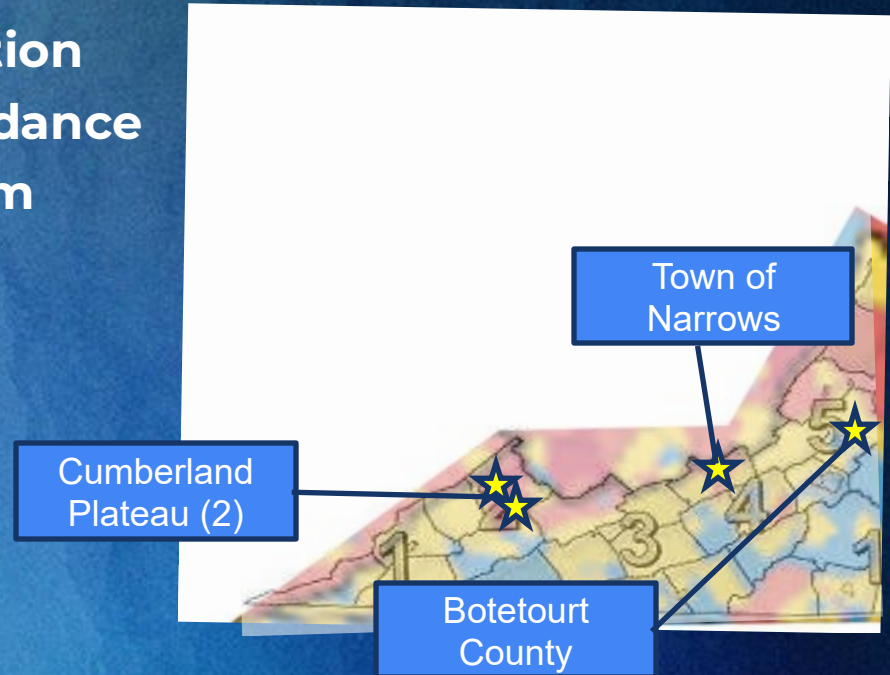
# Riverine Challenge I (2024):

## Topics:

- Landscape & Building Adaptation
- Flood Early Warning and Avoidance
- Community Insurance Program

## Status:

- 4 pilot programs:
  - 2 early warning systems
  - 2 insurance programs
- Pilots run 7/24 – 12/25





# Riverine Challenge II (2025):

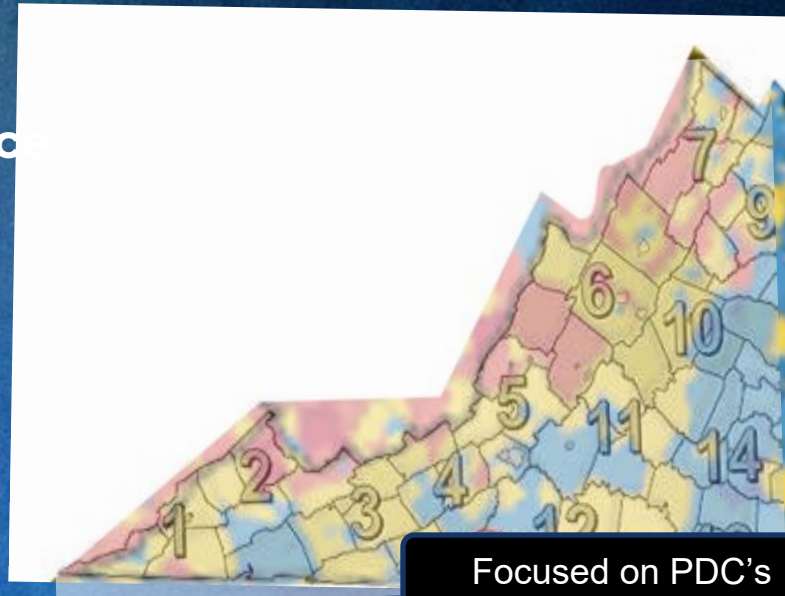
## Topics:

- Landscape & Building Adaptation
- Flood Early Warning and Avoidance
- Community Insurance Program
- Integration of Flood Products
- Business Recovery Programs

## Status:

- 4 pilot programs:
  - 2 expanded early warning systems
  - 1 insurance program
  - 1 emergency in-field disaster mapping

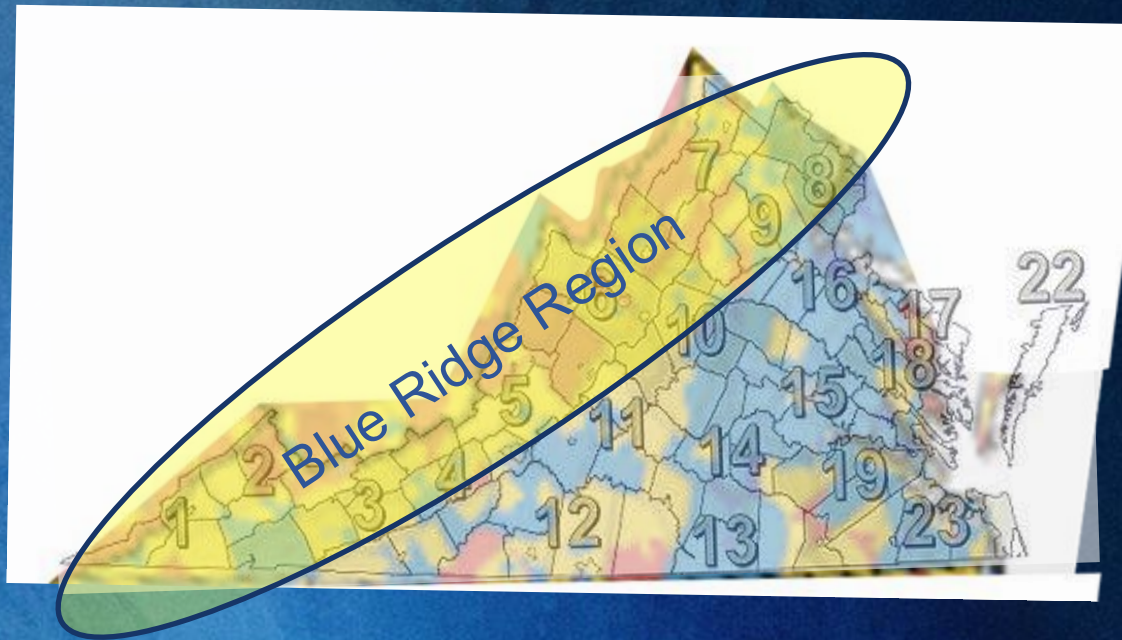
Pilot programs 7/25 – 12/26



# Blue Ridge Regional Challenge:

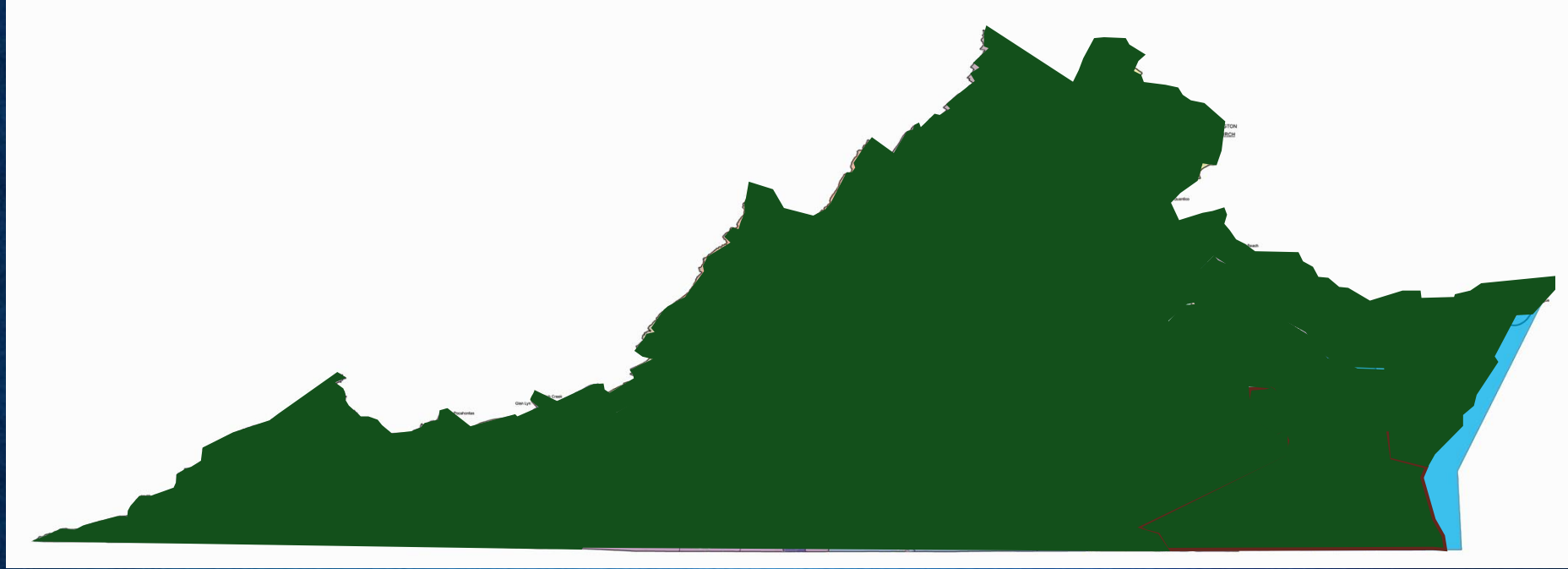
Integrated flood  
protection coverage  
throughout  
Virginia's Blue Ridge  
Region

Establish Virginia  
as the Center of  
Excellence in  
Riverine Flooding  
Protection



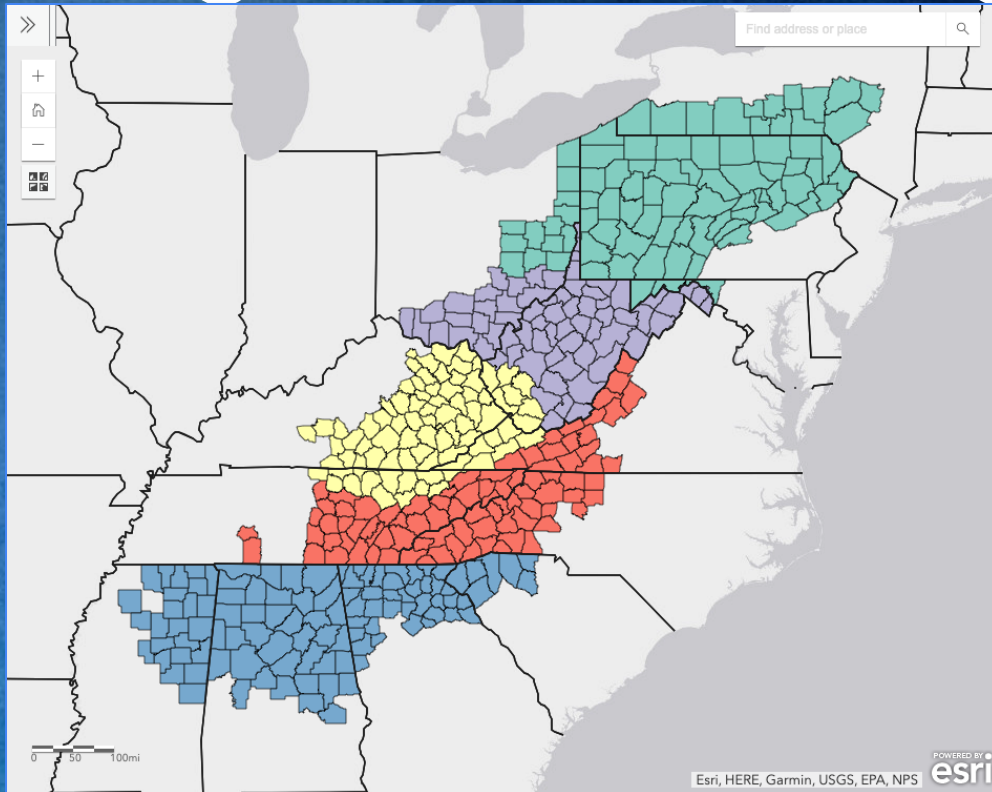


# RISE's Regional Coverage:



# RISE's Future Regional Coverage:

Establish  
Virginia as the  
Center of  
Excellence in  
Riverine Flood  
Resilience





# Floodbase/Raincoat

**Raincoat FLOODBASE**

# A Faster, Fairer Path to Flood Disaster Recovery in Virginia



**VAGHC**

November 20th, 2025



---

## Agenda

**01. Raincoat** — Who we are and what we do

.....

**02. Floodbase** — Who we are and what we do

.....

**03. FloodSafe Virginia**  
Community Insurance for Virginia

---

## Speakers



Alexa Lopez  
**Floodbase**

Alexa is a climate scientist who works in data visualization and client success at Floodbase. With a background in remote sensing, she has worked with NASA and the Texas Commission on Environmental Quality to address climate issues for small communities.

In her role at Floodbase she has helped with creating monitoring programs in Africa, Western Asia, North and South America. These programs have provided underserved communities with direct access to capital which helps in rebuilding after a natural disaster.

---

## Speakers



### Jonathan Gonzalez **Raincoat**

Jonathan is an entrepreneur and computer engineer with a deep passion for technology and its applications in improving people's lives. Motivated by his experiences following the devastating impact of Hurricane Maria in Puerto Rico in 2017, Jonathan co-founded Raincoat, a venture-backed insurtech dedicated to the development of fully automated climate insurance solutions and the technology that powers them.

Raincoat collaborates with insurers, financial institutions, non-profits, and governments to implement solutions that protect communities and individuals from the financial impacts of natural disasters.



An aerial photograph of a river delta, likely the Amazon, showing a complex network of turquoise-colored water channels branching out from a larger body of water into a brown, forested landscape. A large black rectangular box is overlaid on the left side of the image, containing white text.

01.

# Introduction to Raincoat

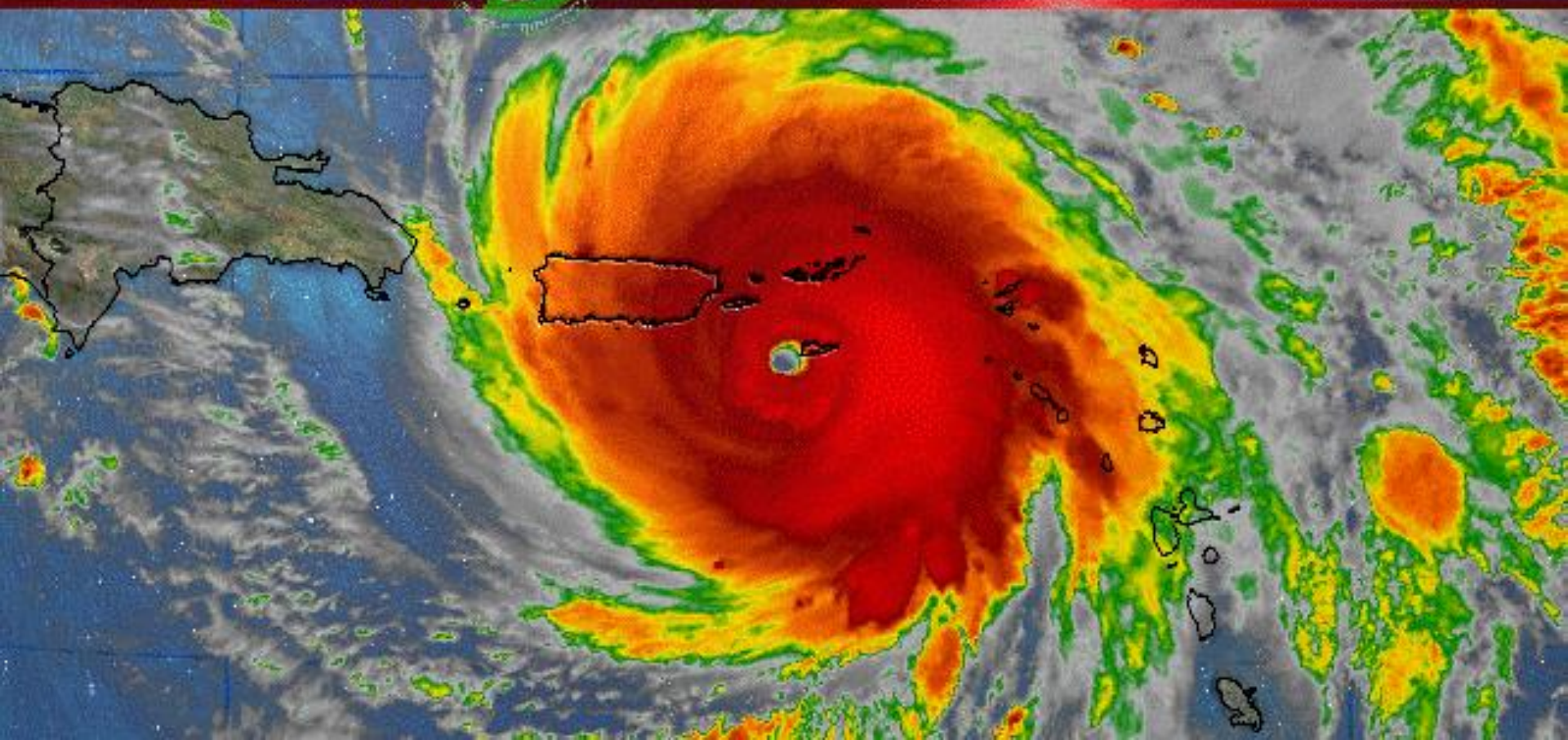


LIVE PINPOINT  
DOPPLER



# HURRICANE MARIA

WED 1:37 AM





The New York Times

## ***Puerto Ricans Are Left With \$1.6 Billion in Unpaid Insurance Claims***

By Frances Robles and Patricia Mazzei

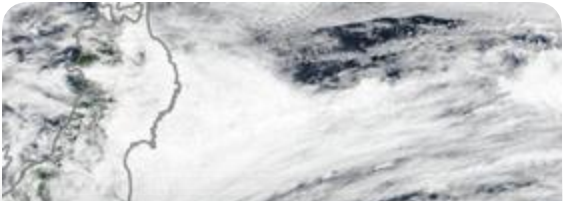
The New York Times

Climate and Environment > | Coast-to-Coast Crisis | Texas' Power | Climate Pledges | Reversing Trump's Rollbacks

## ***Biden to Free Up Billions in Delayed Puerto Rico Storm Aid***

The administration plans to release \$1.3 billion that was meant to help Puerto Rico rebuild after Hurricane Maria in 2017, and will remove restrictions on another \$4.9 billion.





# FORTUNE

FINANCE • IN DEPTH

## ‘Almost everyone is getting screwed’: After climate disasters, people find their battle with insurers is just beginning

By ERICA FRY  
August 9, 2021 7:00 AM EDT | 4



THE WALL STREET JOURNAL

BUSINESS | ENTREPRENEURSHIP | KEYWORDS: CHRISTOPHER MIMS | KEYWORDS

## Climate Change Is Breaking Insurance. Here's How Tech Could Save It.

A new breed of insurer is finding opportunity as larger companies exit some markets

REUTERS® World Business Markets Sustainability More

World

## Parametric insurance policies help cushion climate impacts

By Gloria Dickie and Simon Jessop

May 19, 2023 10:54 AM AST · Updated 9 months ago



## Parametric Insurance Fills Gaps Where Traditional Insurance Falls Short

By Daniel Brettler and Timothy Gosnear | January 9, 2020

PERSPECTIVE

## PARAMETRIC INSURANCE CAN BOOST RESILIENCE FOR THE PUBLIC SECTOR

Parametric insurance empowers the public sector with flexible, timely funds for disaster response and "building back better"



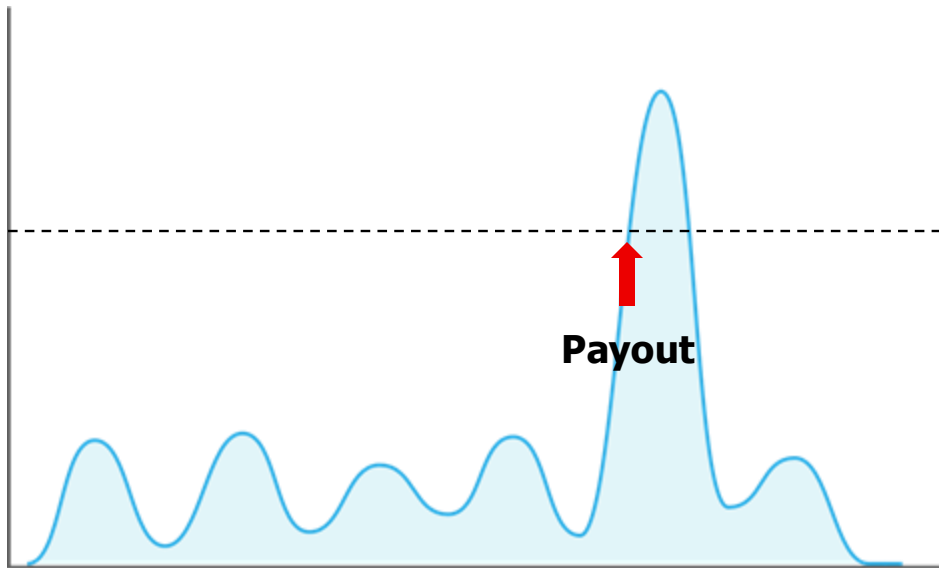


## How parametric insurance works

A measurable number is chosen — like rainfall, wind speed, or flood level.

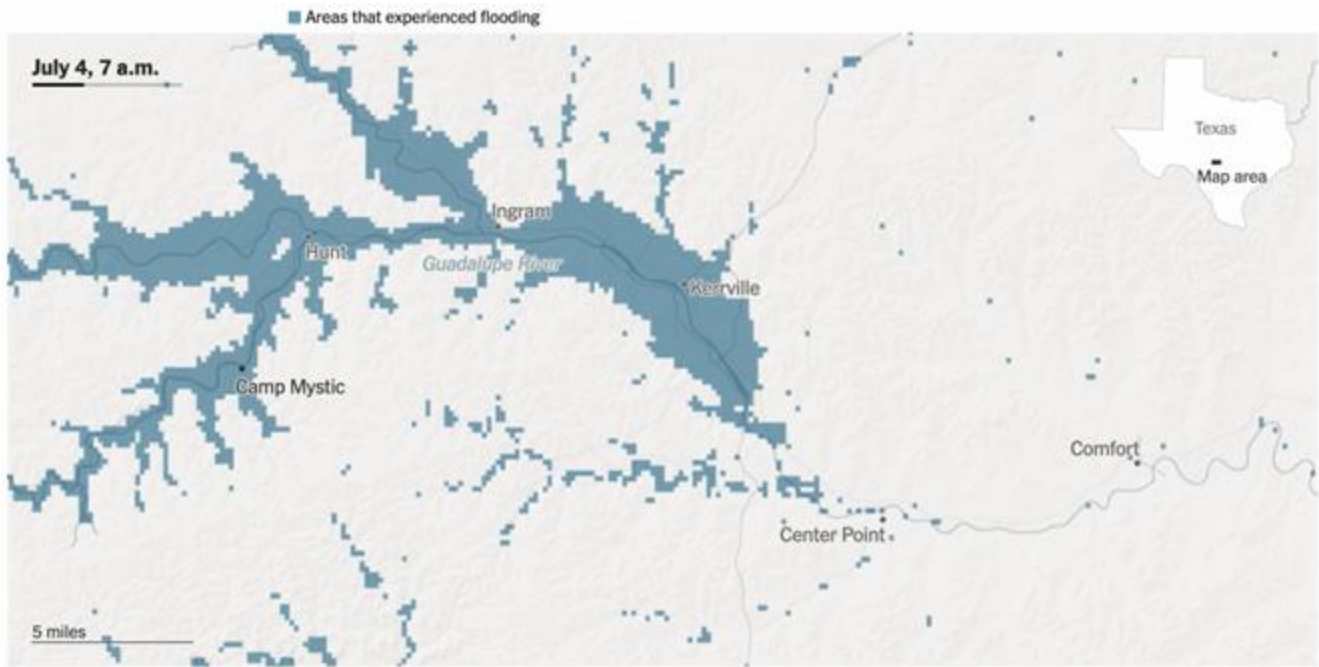
If that number reaches the agreed level, a payout is sent automatically.

**No claims process.** No hassle.





Powered by Floodbase

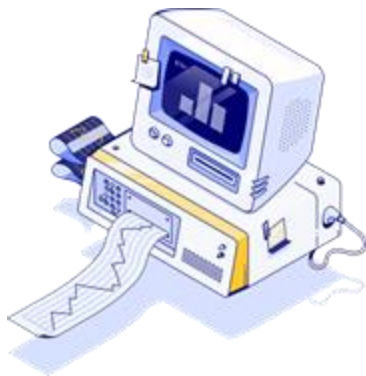


Source: Flooding data via [Floodbase](#) - Note: Map shows areas with any level of estimated flooding. Localized flooding may be underrepresented. - The New York Times

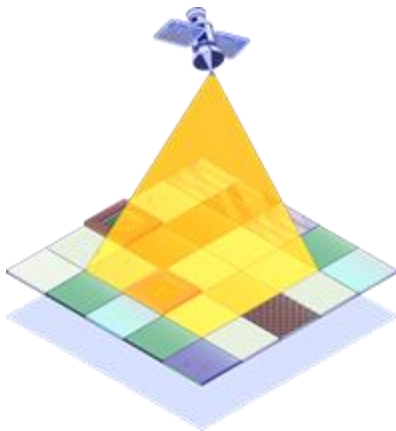




## The challenges of developing parametric solutions at scale



Difficulties in developing practical products that are sustainable.



Complicated data integrations that are difficult to maintain and develop.



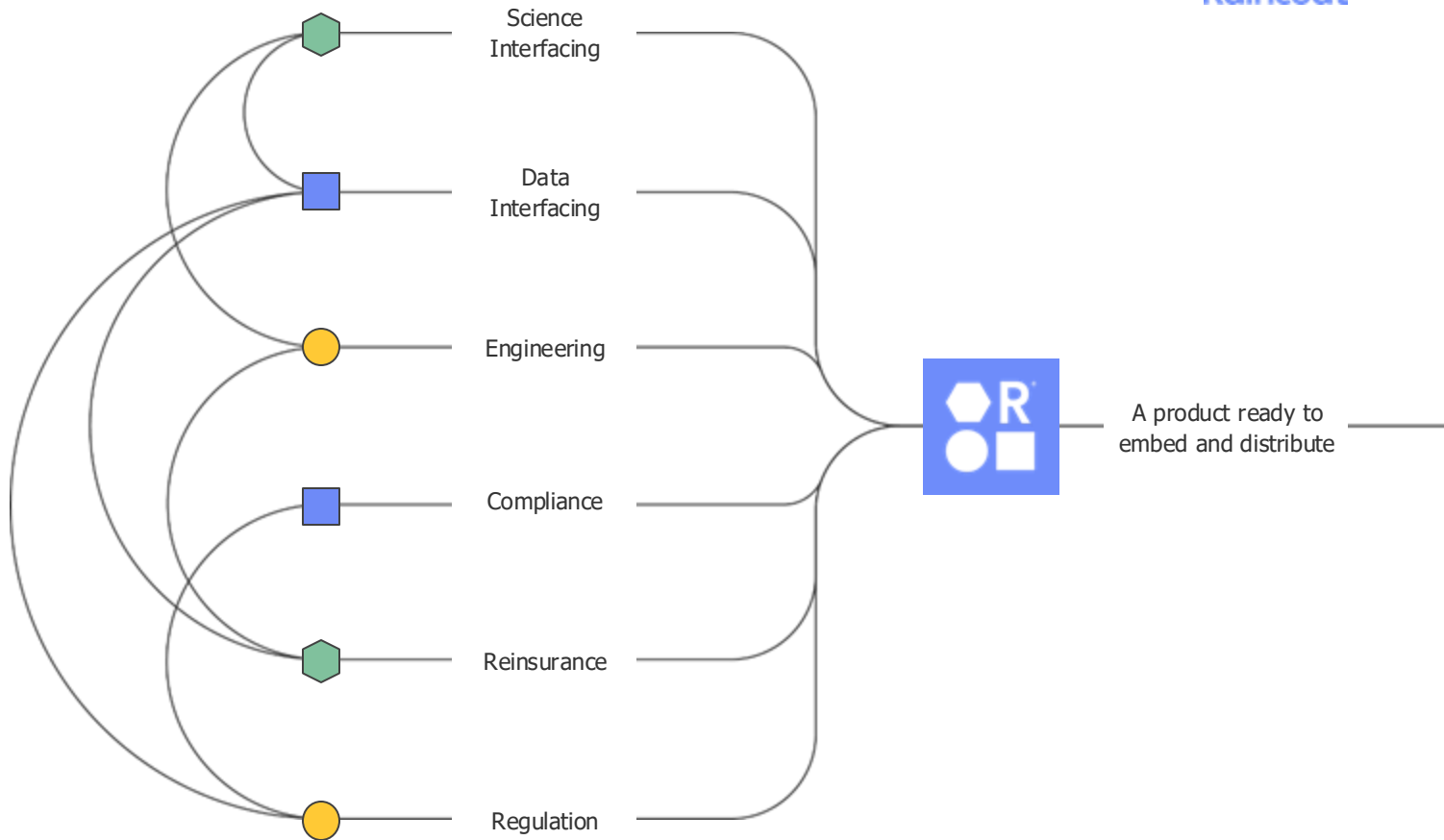
IT and software problems at the time of deploying and scaling the product.





## Filtering the chaos.

Raincoat





# We focus on the technical rails, so you can focus on what you do best.

Raincoat partners to develop highly-scalable climate insurance solutions and the automated infrastructure that powers them.



Support in  
product design

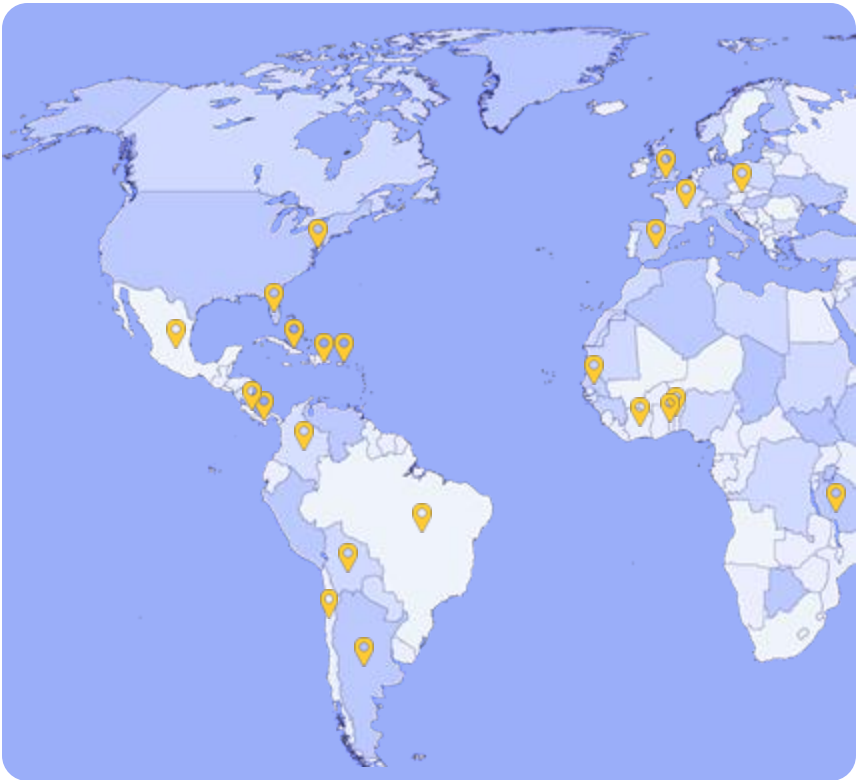


Platform  
and IT



Data  
Interfacing







An aerial photograph of a river delta, likely the Amazon, showing a complex network of turquoise-colored water channels branching out from a larger body of water into a brown, forested landscape. A large black rectangular box is overlaid on the left side of the image, containing white text.

02.

# Introduction to **Floodbase**

---

# 83%

of economic losses from flooding were **uninsured** over the last decade.\*

---

Most government & local business flood risk **cannot** be covered today by traditional insurance products.

Stakeholders that could not get coverage:



Town hospital experienced major **business interruption** from floods



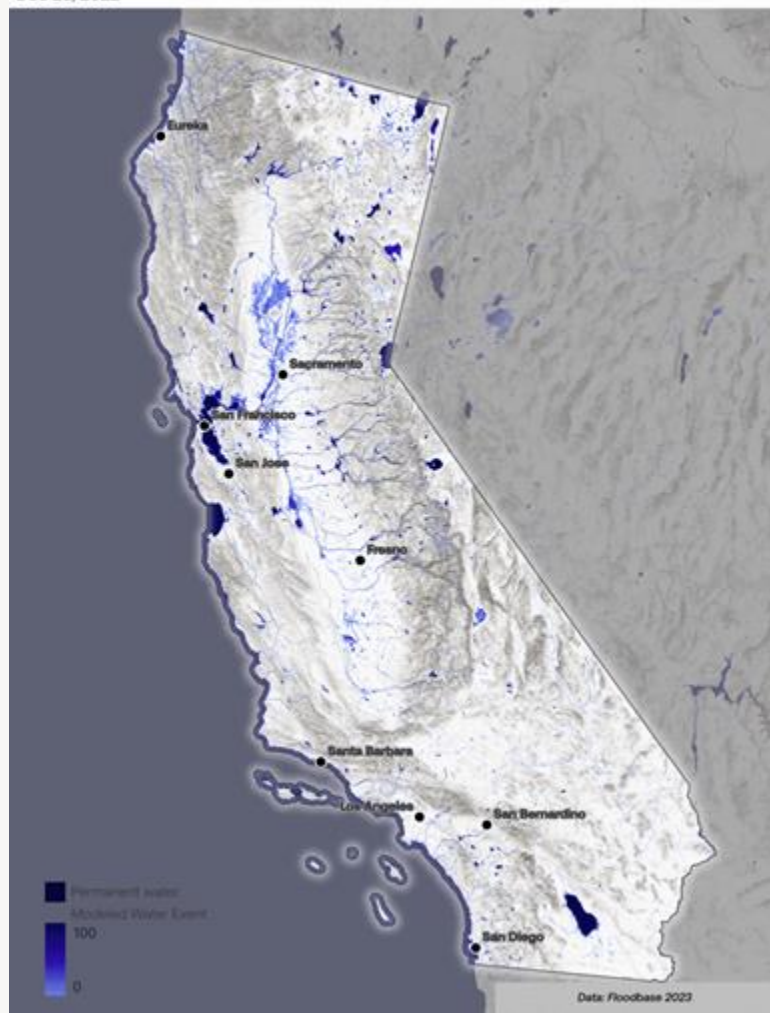
National **government** concerned about wide-scale farm loan defaults



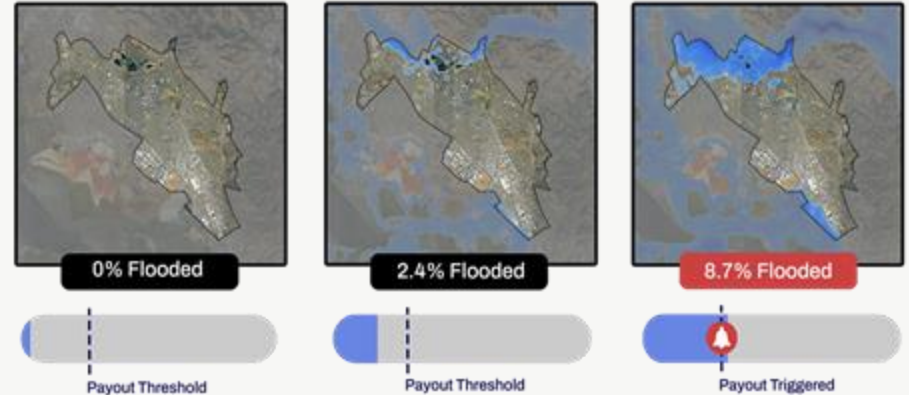
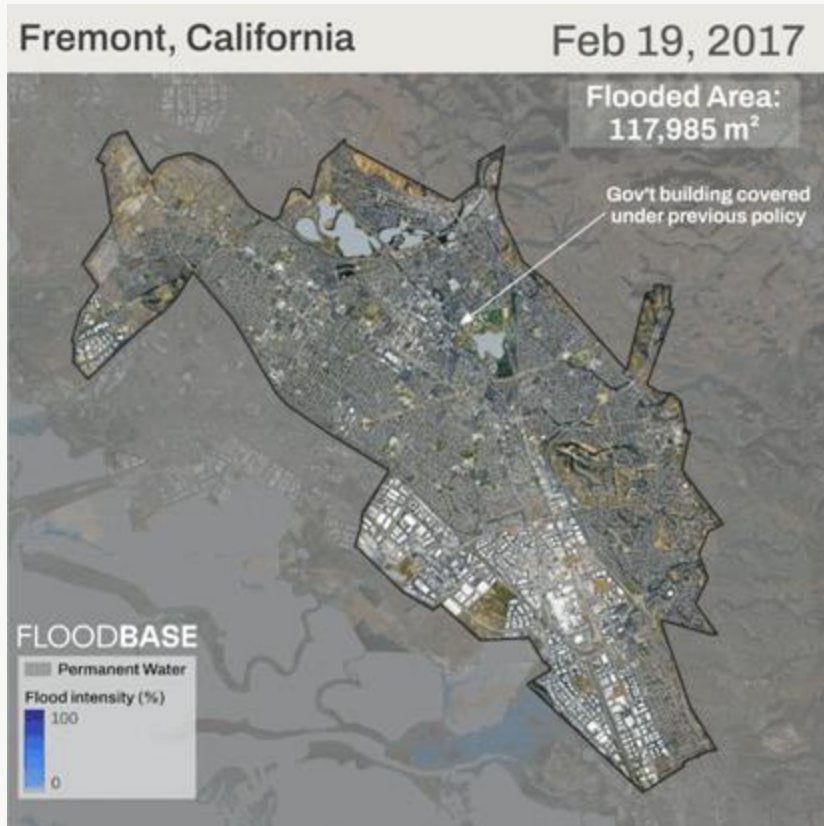
**Local township** needs emergency cash support for lowest income households



**Floodbase invented continuous, real time flood monitoring.**



## How it works | Flood parametric cover for large areas economic loss



Measuring the percent of the city underwater

*“allows me to provide specific coverage and then broaden/it....I’m actually **covering the event and not the building itself.**”*

# Floodbase provides the **data and expertise** to structure & monitor parametric flood insurance

## Parametric expertise

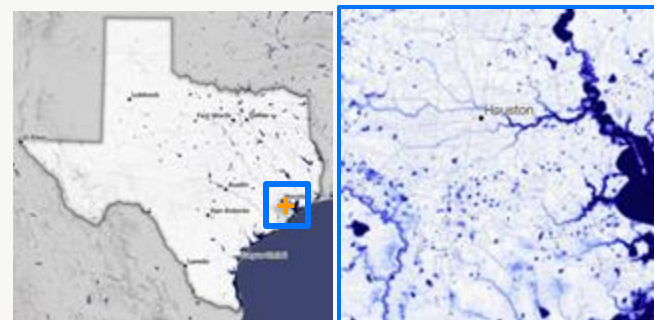
Partner with Floodbase to design flood covers tailored to client needs

## Index for structuring & pricing

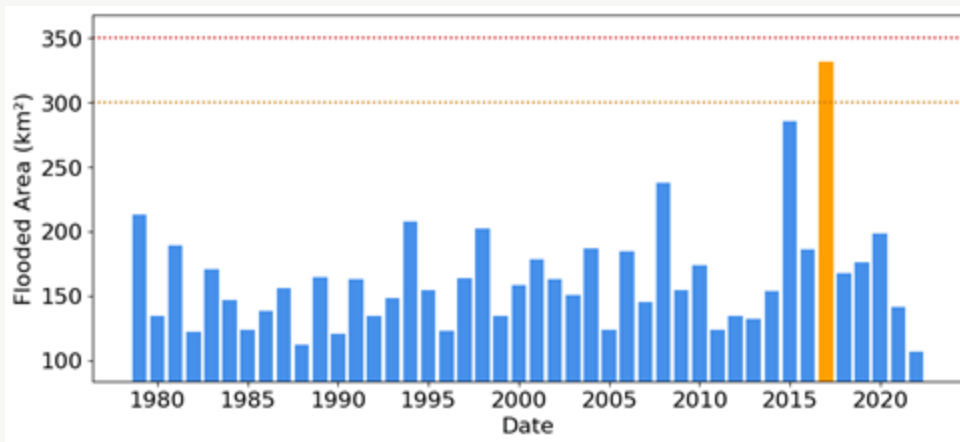
Map the full history of flooding for an area with 44 years of data

## Reporting agent for monitoring & paying out

Floodbase monitors flooding continuously and in near-real time

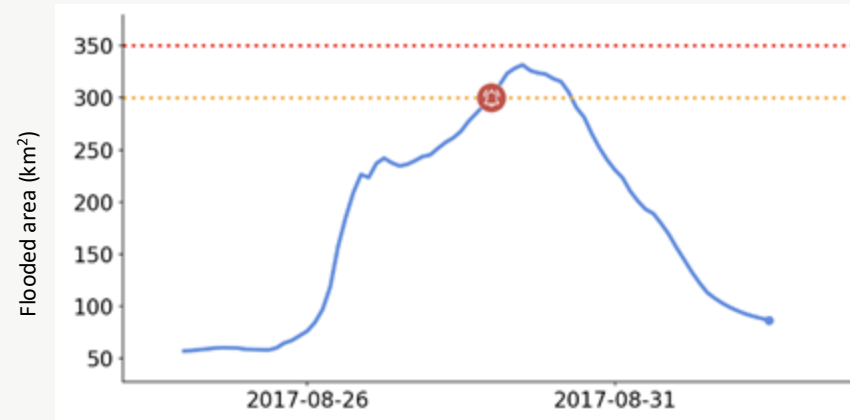


Example cat-in-a-box coverage for a retailer in Houston, Texas



History of flooding within the cat-in-a-box (max by year)

FLOODBASE



Flooding graphed & mapped every hour during Hurricane Harvey within the cat-in-a-box

## Enabling distributors to close the flood insurance gap by covering **loss over large areas**



### **Golf courses**

#### **BI & land loss**

Offset lost revenue when flooding damages land and closes courses.



### **Wineries & vineyards**

#### **Crop & land loss**

Offset lost revenue when flooding destroys land.



### **Specialty farms**

#### **BI & crop loss**

Enable cover for all crops + BI with a single policy



### **Livestock**

#### **Indirect loss**

Cover indirect livestock mortality due to flooding



### **Hotel chains**

#### **NDBI**

Supplement parametric hurricane policies to offset reduced occupancy.



### **Industrial**

#### **Loss of Ingress / egress**

Offset lost revenue when flooding obstructs access to and from facilities.



### **Retail**

#### **NDBI**

Offset lost revenue when flooding reduces foot traffic.



### **Government**

#### **Disaster response**

Finance disaster relief efforts for cities, states, and countries.



...with industry-leading flood detection algorithms



20+ peer reviewed scientific publications over 10 years – featured on front cover of Nature in 2021



Proprietary training data labeled over 1000+ hours by leading scientists and 10,000+ hours by AI/ML scientists



Flood extent validated against 3rd party dataset in partnership with top-tier global insurer



Floodbase data is used by Google, FEMA, The New York Times, CNN, and The United Nations



# 10,000 policies globally, a decade of trusted science, & \$1B+ in capacity partners

## Trusted by the public sector



Disaster response flood data provider,  
including for Hurricane Helene



International disaster response flood data  
provider



Reporting agent for parametric flood policy  
providing city-wide cover

## Trusted by insurers



Backs Floodbase programs



Backs Floodbase programs



Backs Floodbase programs

## Trusted by businesses

### Industrial facilities

receives payouts for  
business interruption



### National Governments

receive payouts for  
flooded farmlands



### US cities

receives payouts for  
disaster response



An aerial photograph of a river delta, likely the Mississippi River Delta, showing a complex network of distributaries branching out from a main channel. The water is a deep blue-green, and the surrounding land is a mix of brown and tan, indicating a mix of vegetation and bare earth. A large black rectangular text box is overlaid on the left side of the image.

03.

**FloodSafe Virginia**  
Community Insurance for  
Virginia



# What is Floodsafe?

An initiative to deliver rapid, financial aid to Virginia's most vulnerable communities, following catastrophic flooding events.





# The new normal

Towns in western Virginia are facing rising flood risks and the trend is unfortunately accelerating.

Back-to-back disasters have hit Southwest and West Virginia. This is not “just a bad year” anymore, this is the new normal; and it's getting worse.

**HURLEY:** Zero individual homeowner assistance from FEMA after '21 floods

**WAYNESBORO:** City river overflowed its banks for the first time in years



**TAZEWELL:** 50+ evacuations following Jett '25

**WHITEWOOD:** Millions of USD in road damages from '22 floods

Most government, local businesses, and households with flood risk **cannot** be covered today by traditional insurance products.



Floods destroy land and decimate **farming** yields



The **public sector** can't insure roads



**Transportation** routes are exposed & economically crucial



Floods block access to **hospitals** & cause canceled elective procedures



No one visits **hotels & resorts** in flooded cities



Floods block access to **manufacturing** facilities

# The Human & Economic Toll



- Recovery costs are skyrocketing, going back to “normal life” becomes more tedious each time, stability keeps slipping.
- Low-income and rural families are getting hit the hardest; often uninsured and unable to rebuild.
- Since 2023–2024, the trend is clear: storms are getting worse.





# When disaster strikes, nonprofits step in

Recent disasters have highlighted the essential role of nonprofits in disaster response and long-term recovery.

- **Nonprofits fill critical gaps** left by overwhelmed federal programs; providing shelter, food, case management, and long-term support.
- **Their local roots enable lasting recovery**, helping communities rebuild stronger and more resilient than before.



LOCAL

## United Way of Southwest Virginia raises \$2M+ for Helene recovery

by: Murry Lee, Jayonna Scurry  
Posted: Jan 6, 2025 / 12:58 PM EST  
Updated: Jan 7, 2025 / 05:42 AM EST

SHARE    

ABINGDON, Va. (WJHL) — The United Way of Southwest Virginia (UWSWVA) has raised millions of dollars to help the region recover from Hurricane Helene.

The United Way announced on Monday that between Sept. 30 and Dec. 30, 2024, the organization raised more than \$2 million through community-based donations.

[| VSP tallies hundreds of crashes Monday morning amid winter storm >](#)

According to the United Way, the money will be directly distributed to 14 localities affected by Helene to support individual assistance and recovery efforts.

# The problem



United Way of  
Southwest Virginia

“

*"We just can't move  
quickly enough, we just  
can't"*

- UW Exec. Director

- **Raising funds takes too long.** Nonprofits often wait months, and in many cases the needed funds never arrive.
- **Timing of aid matters.** Speed is important; delays worsen outcomes for vulnerable families, including those at risk of homelessness.
- **Many people are left out.** Renters and small businesses are frequently excluded from traditional aid programs, and limited fundraising makes it difficult to cover the full population.

# Community-Based Catastrophe Insurance

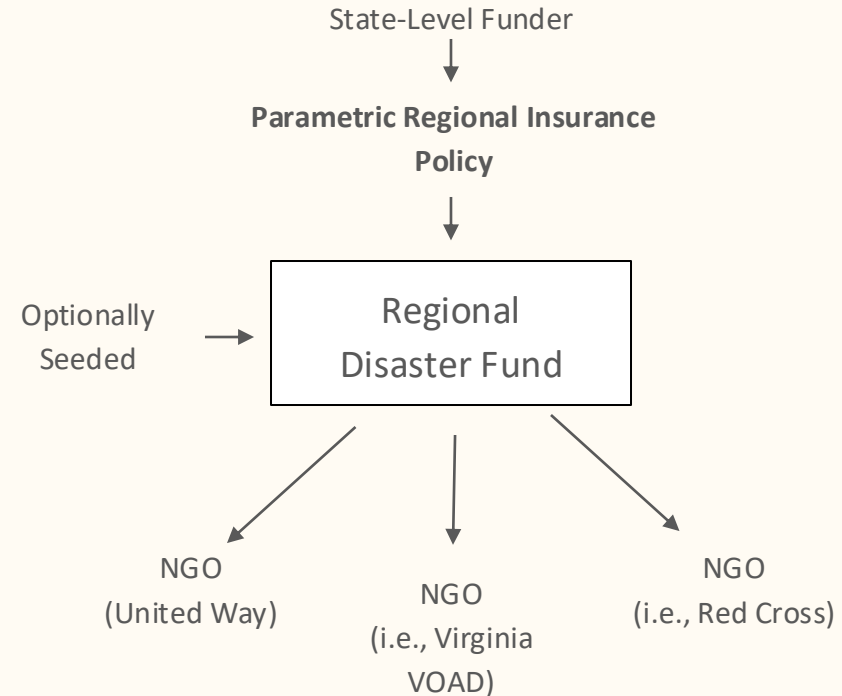


- Community-based insurance delivers **hyper-relevant, tailor-made coverage**, because communities understand their own risks better than external underwriters.
- It's widely recognized as a powerful model to **close the protection gap**.
- **It unlocks resilience at scale**, especially in underserved or informal markets where traditional insurance struggles to operate.



## Solution / How it works

- Establish the first-ever state or regional risk pool.
- Use this pool to deploy flexible capital to disaster-response stakeholders across the region.
- Structure a regional insurance policy that replenishes this revolving fund.
- Allow this fund to quickly distribute capital to participating NGOs throughout western Virginia.





# Benefits

- **For Communities:** Rapid payouts within days, bypassing slow traditional processes and significantly reducing long-term harm.
- **For NGOS:** Less time fundraising, more time supporting communities. Reliable capital enables greater impact and expanded services where it matters most.
- **For the State:** Stronger resilience, rapid aid, and clear public visibility. Reduces economic losses from disasters, leverages existing networks, and operates with low administrative overhead and costs.





# Where has this worked before

Parametric insurance has proven its mettle in high-risk environments, offering simple, trigger-based payouts that outpace traditional claims processes.

## Jamaica

- **Hurricane Melissa (Oct 2025):** Parametric cat bond triggered on wind/pressure thresholds (185 mph, 892 mb), releasing **\$150M within days**.
- **CCRIF Payouts:** Automated disbursements of **US\$70.8M** for wind and **US\$21.1M** for rainfall, with payouts **under 14 days**, supporting immediate repairs and aid delivery.

## Miami

- **Revolving Fund Model:** Delivers rapid grants to local nonprofits after disasters.
- **Parametric Policy (2024):** One of the first U.S. philanthropic institutions to adopt a parametric insurance policy to **replenish a disaster fund**, with triggers tied to hurricane metrics.



# Requirements for Success



## **Community and NGO buy-in**

Local NGOs are essential partners due to their community context, operational know-how, and trust. Their knowledge and current engagements can drive support and aid within each community.



## **Strong technical product and operational know-how**

The program requires a reliable, technically accurate product that reflects the state's risk profile. Solid operational processes, claims, customer support, and reporting, ensure consistent delivery. A dependable product allows the program to scale effectively.

## **Government buy-in and budgetary support**

State support is critical to legitimize the program and align it with broader resilience goals. Budgetary backing ensures the resources needed for sustainable operations. Active government involvement also improves coordination across agencies.



## Partner with us today

Join us in giving communities the certainty they deserve and in redefining how Virginia prepares for and recovers from floods. If you can support or want to get involved, contact us:

**[alexa@floodbase.com](mailto:alexa@floodbase.com)**

**[jonathan@teamraincoat.com](mailto:jonathan@teamraincoat.com)**



# InnSure



RISE RESILIENCE RIVERINE CHALLENGE

# Total Cost of Risk Framework

---

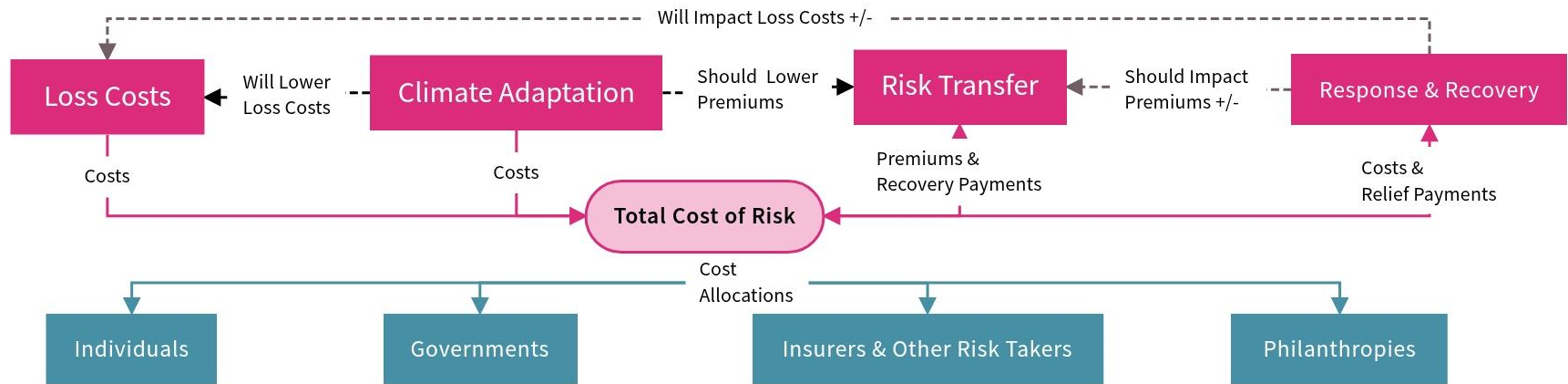
**Virginia Governors Housing Conference**

November 2025



# Total Cost of Risk (TCOR) Framework

The TCOR Simulator provides a scenario planning framework focused on supporting better insurability management planning that calculates probabilistic annualized **component costs and total costs**, how costs are **allocated** & **the dynamic relationships** between investments and other costs across the entire public, private and philanthropic funding systems for managing catastrophe impacts.



**The rigor of insurance loss cost accounting but designed for community leaders to apply to economic development planning.**



### Zone of Interest: Waste Water Treatment Plant

Figure: Past Riverine Flooding Events in Town of Narrows and their Impact on the WWTP



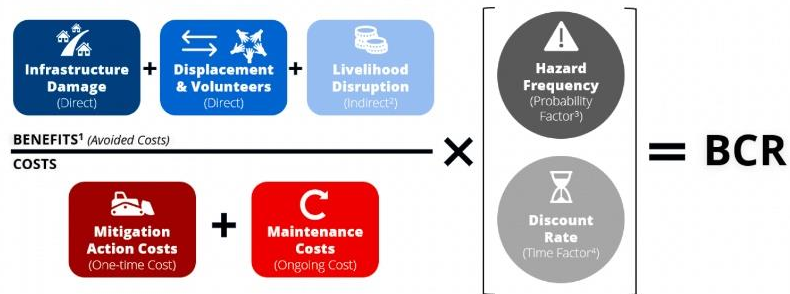
## FEMA BCA Methodology



# Total Cost of Risk

Use case: Support FEMA BCA Methodology

Figure: FEMA BCA Methodology



<sup>1</sup> FEMA BCA uses the terms "Standard" and "Additional" for Direct and Indirect benefits, respectively.  
<sup>2</sup> Available only if a Residential property and Direct Benefits are greater than zero.  
<sup>3</sup> For flooding events, the probability is based on the flood frequency curves for FEMA flood zones.  
<sup>4</sup> FEMA requires BCR value to exceed 0.75 for 7% discount rate and 1.0 for 3.1% discount rate.

FEMA BCA Methodology



TCOR Approach

# Scenario Analysis

Three Scenarios Considered



## Scenario 1: Do Nothing

- No new project or maintenance costs (business as usual)
- No costs prevented
- Opportunity costs due to weak service delivery



## Scenario 2: Fix WWTP

- New project and maintenance costs
- Opportunity costs translate into benefits



## Scenario 3: Combine with Pearisburg

- New project and maintenance costs
- Greater regional benefits
- Opportunity costs translate into benefits

FEMA BCA Methodology

# Scenario Analysis

## 17 Different Costs Considered

No.	TCOR Impact Category	Impact Type	Impact Geography/Bearer			
			Households	Community	Businesses	Municipality
1	Mitigation Action Cost	Direct				✓
2	Maintenance Cost	Direct				✓
3	WWTP Damage	Direct				✓
4	Property Damage	Indirect	✓		✓	
5	Infrastructure Damage	Indirect		✓		✓
6	Livelihood Disruption	Indirect	✓			
7	Business Disruption	Indirect			✓	
8	Displacement	Indirect	✓			
9	Volunteer Efforts	Indirect		✓		
10	Nature Restoration	Indirect				✓
11	Public Health	Indirect		✓		
12	Cultural Loss	Indirect		✓		
13	Poor Service Delivery	Opportunity		✓		
14	Service Ecosystem Disruption	Opportunity		✓	✓	✓
15	Foregone Development Disruption	Opportunity		✓		✓
16	Missed Employment	Opportunity		✓	✓	

Events are more frequent and more costly in part as a result of climate change.

# Scenario Analysis

BCR close to 0.75 FEMA threshold for reimbursement when costs are considered.

15	<b>Scenario Summary - Cumulative 500 Year Flood (30 year NPV)</b>				
16	<b>No.</b>	<b>Intervention</b>	<b>Overall Cost</b>	<b>Overall Benefit</b>	<b>BCR Net Benefit</b>
17	1	No Action	(\$3,915,464)	-	0.00 (\$3,915,464)
18	2	Fix Narrows WWTP only	(\$12,526,819)	\$8,054,792	0.64 (\$4,472,028)
19	3	Combine Narrows & Pearisburg WWTPs via VA SR 100	(\$13,255,203)	\$8,445,176	0.64 (\$4,810,027)
20	4	Combine Narrows & Pearisburg WWTPs via US 460	(\$10,323,256)	\$7,210,367	0.70 (\$3,112,889)
21					
22	<b>BCR Sensitivity (500 Year Flood Scenario)</b>				

FEMA BCA Methodology



# Scenario Analysis

Note: Impact of discount rate.

24	Fix Narrows WWTP only			
25	NPV/Discount Rate	3.1%	5.0%	7.0%
26	30-year	0.65	0.58	0.53
27	50-year	0.90	0.71	0.59
28				



FEMA BCA Methodology

# Scenario Analysis

BCR Improves when costs shared with neighboring community

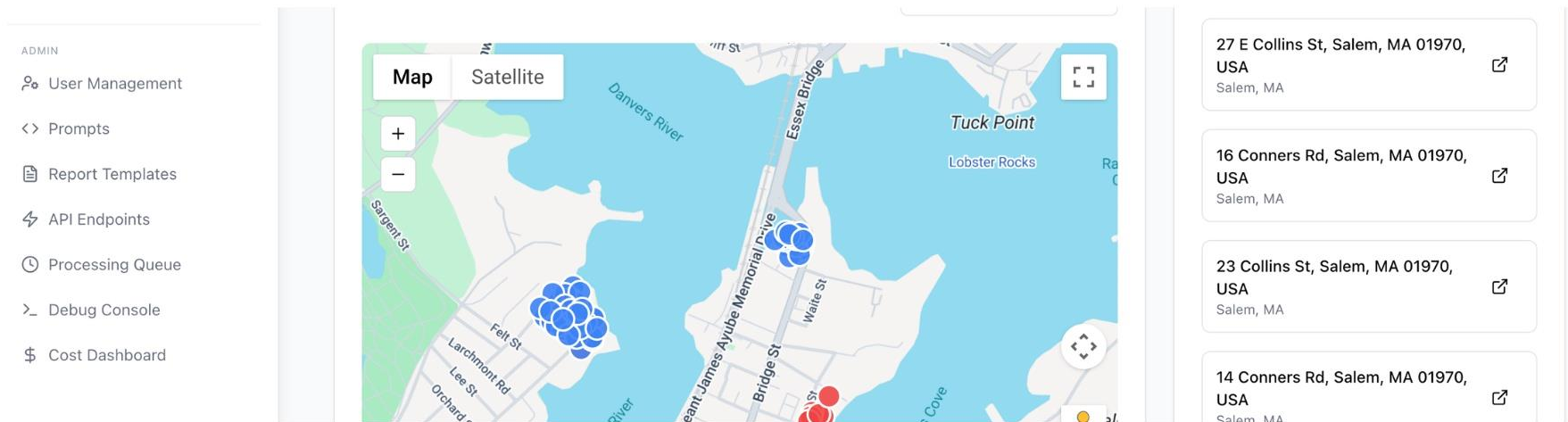
15	<b>Scenario Summary - Cumulative 500 Year Flood (30 year NPV)</b>					
16	<b>No.</b>	<b>Intervention</b>	<b>Overall Cost</b>	<b>Overall Benefit</b>	<b>BCR</b>	<b>Net Benefit</b>
17	1	No Action	(\$3,915,464)	-	0.00	(\$3,915,464)
18	2	Fix Narrows WWTP only	(\$12,526,819)	\$8,054,792	0.64	(\$4,472,028)
19	3	Combine Narrows & Pearisburg WWTPs via VA SR 100	(\$13,255,203)	\$8,445,176	0.64	(\$4,810,027)
20	4	Combine Narrows & Pearisburg WWTPs via US 460	(\$10,323,256)	\$7,210,367	0.70	(\$3,112,889)
21						
22	<b>BCR Sensitivity (500 Year Flood Scenario)</b>					

FEMA BCA Methodology

**Key Assumption:** Pearisburg risk is no worse or better than Narrows.

# TCOR Simulator

MVP up and running in Salem, MA



Events are more frequent and more costly in part as a result of climate change.

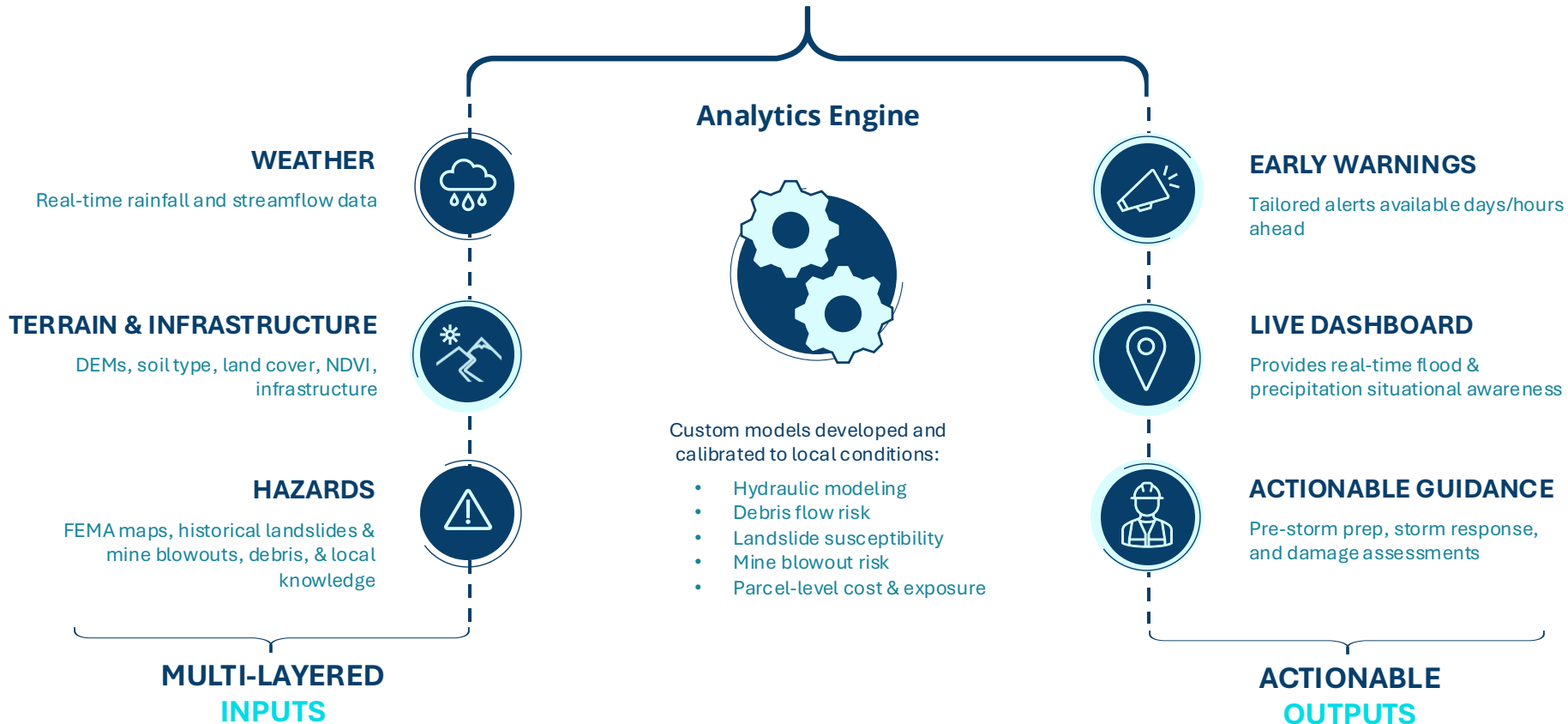
# Conclusions

- 1 | Total Costs Approach Leads to different Conclusions
  - Component costs matter
  - Costs can be financed ahead of time via private markets.
- 2 | Regional Strategies Matter
  - Regional approach lower the cost of capital and spread costs.
  - Small towns have very limited ability to finance risk or infrastructure on their own.
- 3 | The WWTP business relationship with customers can be mechanism for financing risks
- 4 | Community leaders need lower cost methods to do loss cost modeling.
  - Through process we have developed formulas to calculate 17 identified costs

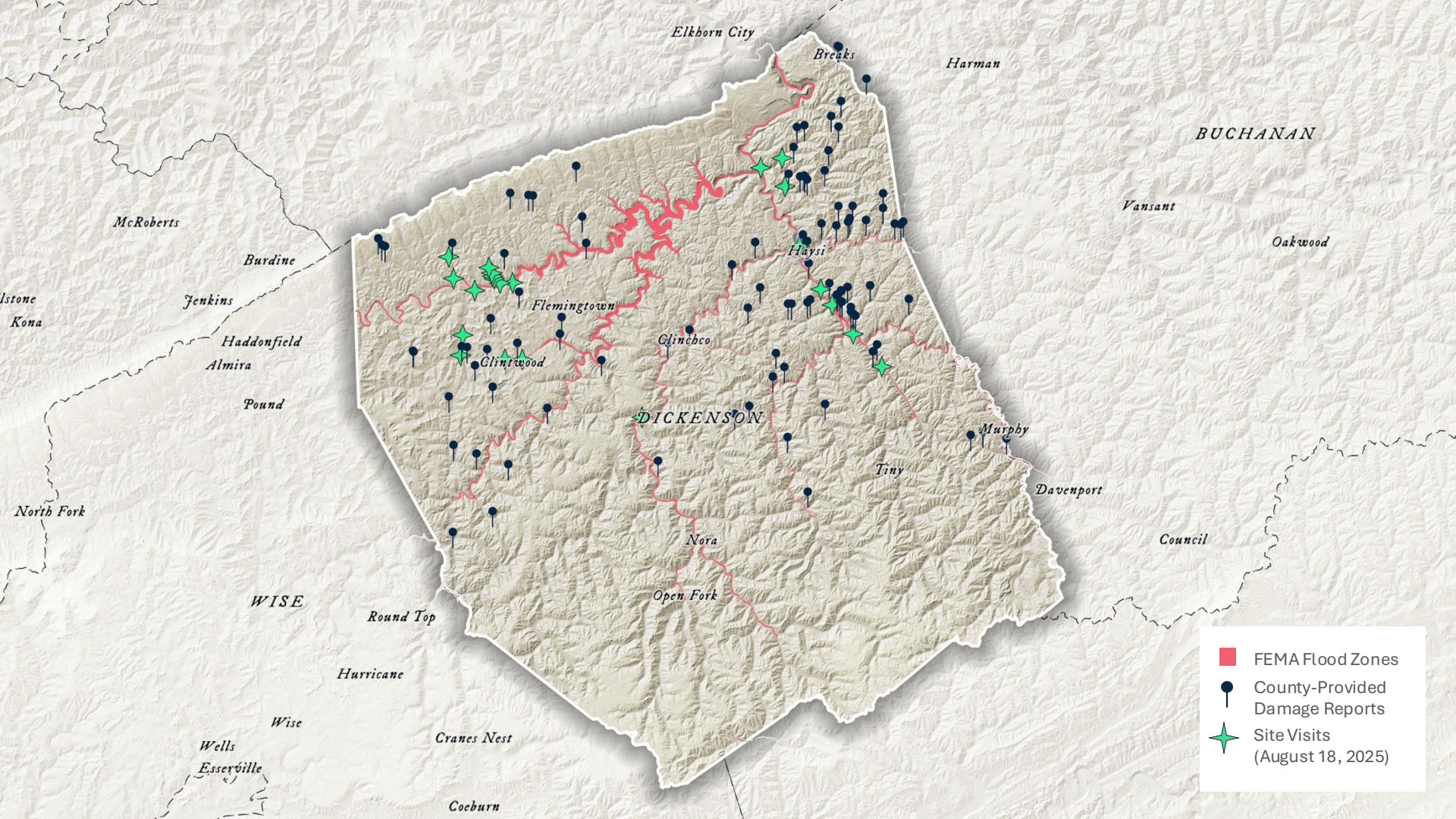


# Merak Labs

# Lighthouse™

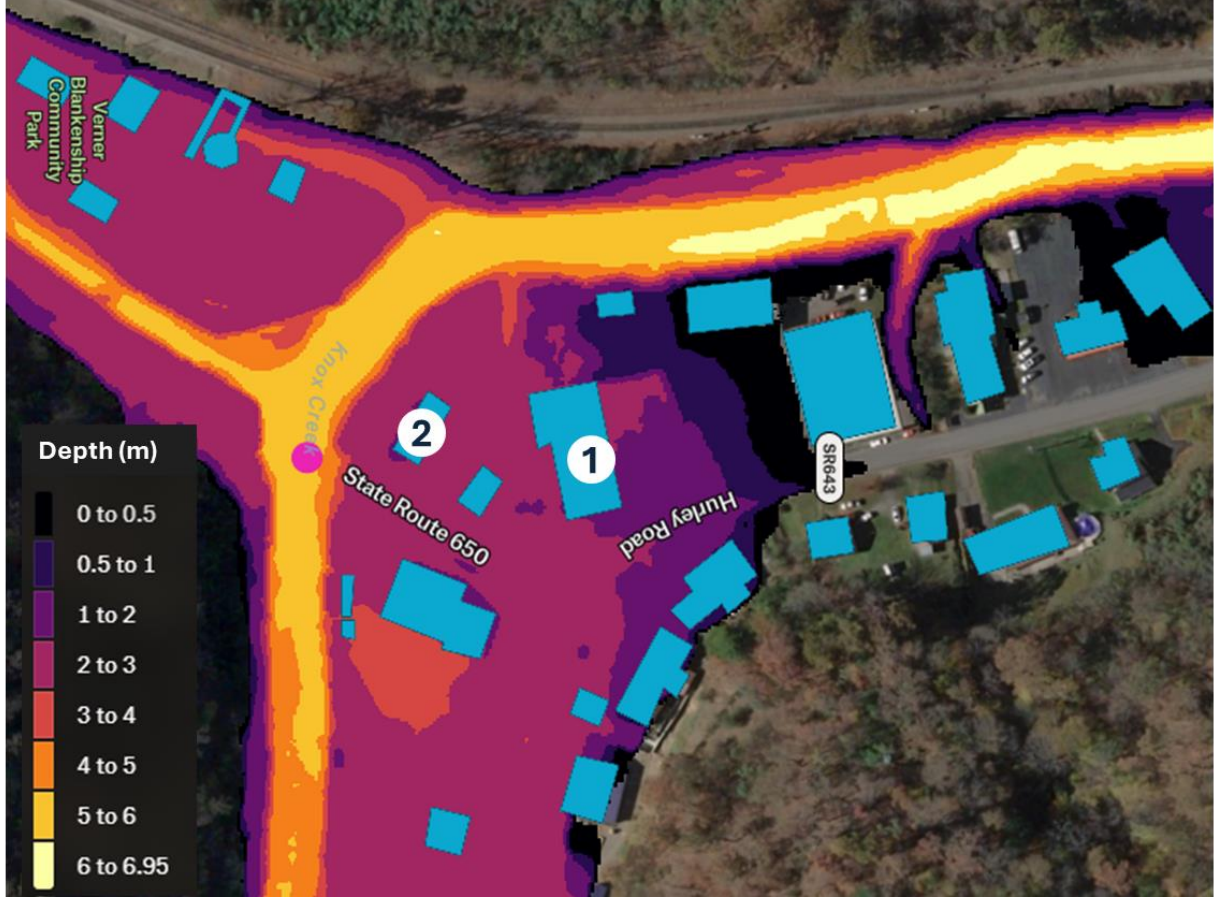








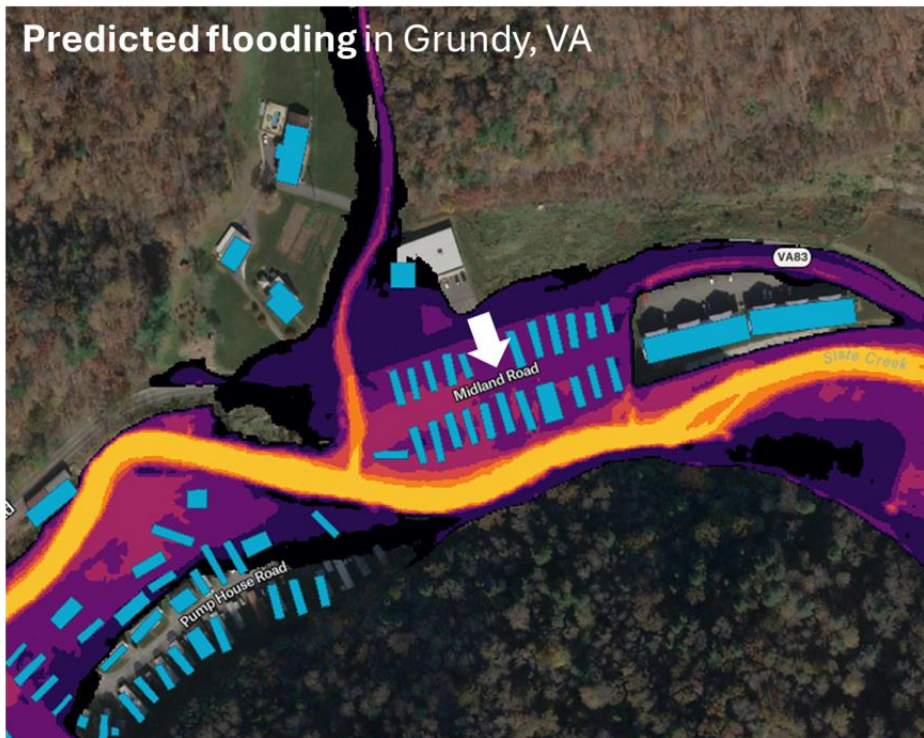
**Predicted flooding** in Hurley, VA, assuming a 25-Year Storm Event



**Actual Flooding** on February 15, 2025









# Juno Maps

# A Modern Platform for Regional Resilience



- Unified system for daily planning, fieldwork, and emergency response
- Easy for any department to use, with or without GIS experience
- Supports existing workflows and fits alongside current GIS programs
- Designed for everyday use so teams stay familiar and ready when events occur

## What Powers Smart Site Plan<sup>TM</sup>

- Access to 20M+ open data layers for quick insight
- High resolution imagery to understand sites and conditions
- Mobile ready tools that make mapping, photos, notes, and quick sketches easy
- Custom digital forms that support everyday tasks and field reporting
- Smart routing tools that support planning, operations, and debris workflows
- Live share links that keep teams and the public informed
- Offline capability in development for reliable use anywhere

# Program Deployment

- Supports up to 7 Planning District Commissions (PDCs) across western Virginia
- 128 custom project environments prepared and ready for onboarding
- 1 year of full platform access provided through RISE
- Cellular iPads available for all participating PDCs and localities

# Participation & Engagement

- Memorandums of understanding currently signed with 6 PDCs
- 10 participating locations actively engaged (6 PDCs + 4 localities)
- Ongoing group and individual training sessions
- Growing interest across planning, public works, and emergency management teams

# Growth & Coordination

- Demonstrative sessions held with VDEM staff
  - Shared workflows helping localities align their practices
  - New opportunities emerging for cross PDC collaboration
  - Momentum building toward a broader, shared operating view
- Increasing multi agency interest for both daily and event use across the region
- Clear path toward wider adoption as onboarding continues and more teams come online

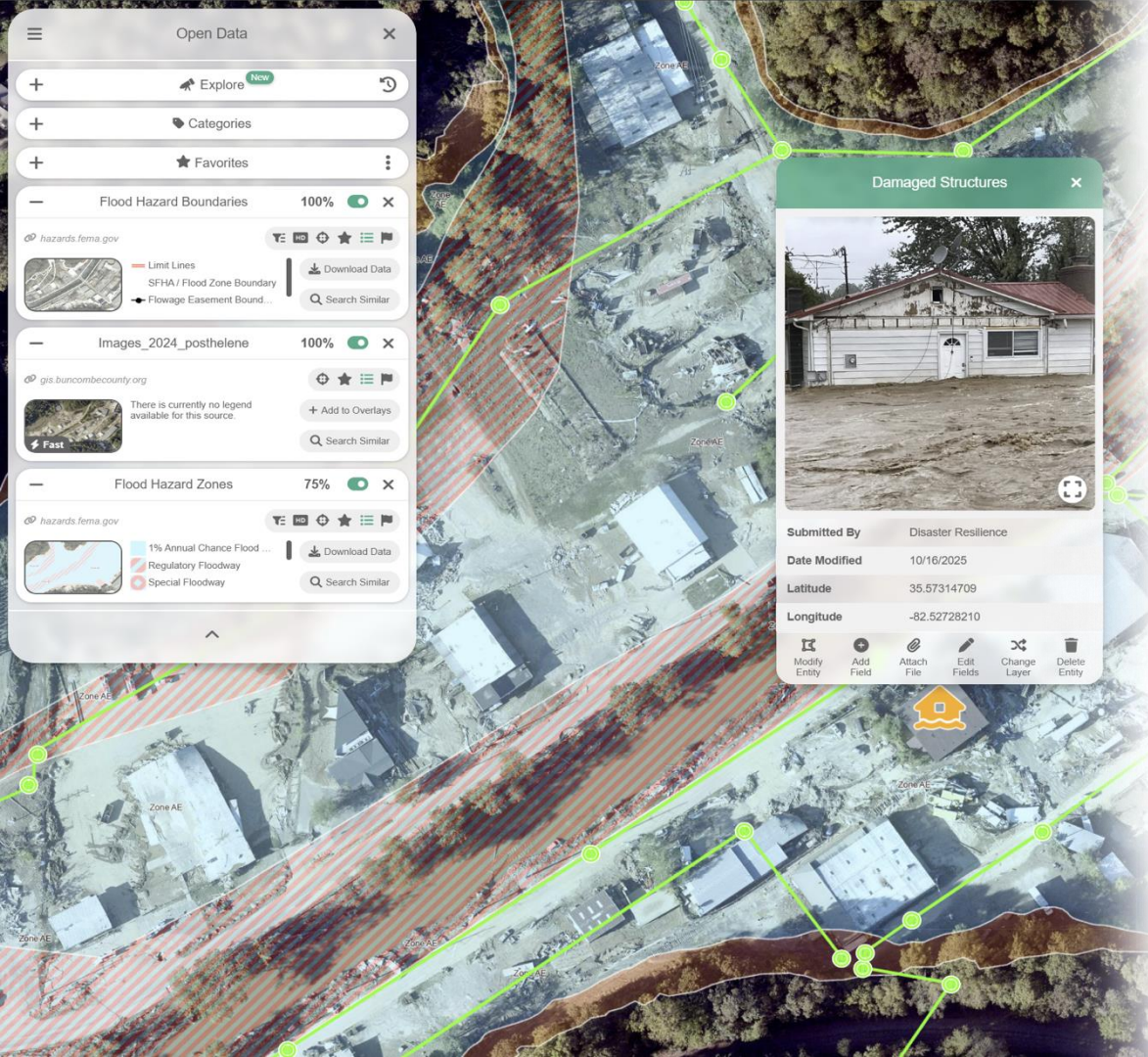






# Moving Virginia Ahead Together

- Strengthening offline tools so teams can keep working anywhere
- Using live sensors to show where crews, contractors, and assets are in real time
- Creating an API that connects easily with platforms already in use
- Turning day to day feedback into practical improvements that matter
- Removing bottlenecks to make fieldwork quicker and easier
- Continuing to grow as a local partner supporting Virginia communities



# Floodmapp



# About FloodMapp

## Mission

Building a safer future by **saving lives** and **mitigating flood impact**.

We work with agencies in AU and US to enhance public safety and mitigate flood impact:

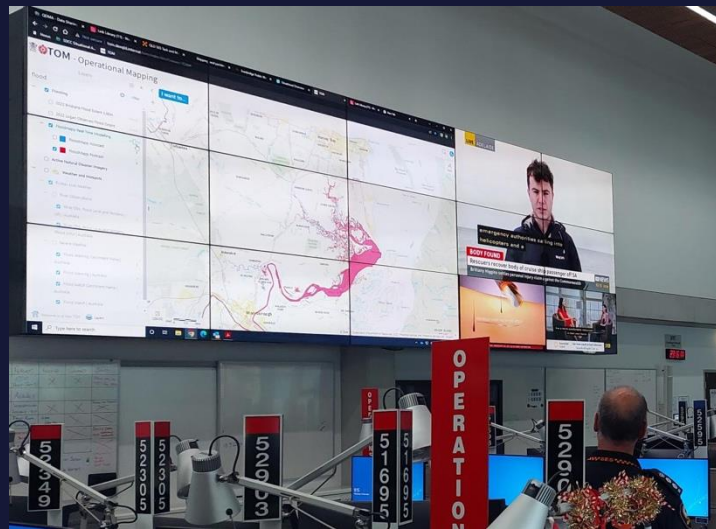
- **Government** - Local, state, federal
- **Critical infrastructure** to help restore our power and community access.

## Core Solution

Providing **real-time flood mapping and intelligence**, empowering emergency managers with data-driven insights for faster, more informed decision-making during flood events.

## How It Works

FloodMapp integrates seamlessly into GIS platforms via APIs, delivering live flood mapping data directly. Powered by its cloud-based DASH technology, it uses machine learning and real-time hydrological and hydraulic data to provide **high-resolution flood forecasts, live situational awareness, and post-event analysis**.



# FloodMapp Products

*Before, During, After.*

## ForeCast



## NowCast



## PostCast





# ForeCast:

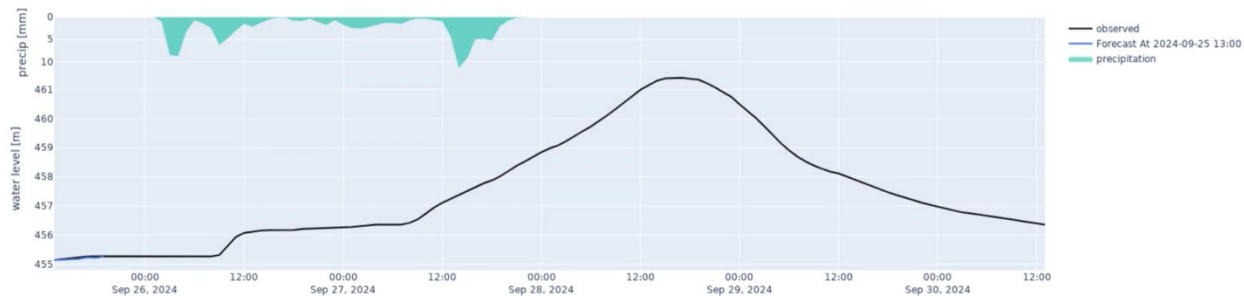
Impact-Based  
Hydrology & Hydraulic  
Forecast

Live impact analytics

6-72 hour forecast

ECMWF, BoM Access

Forecast at 2024-09-25 13:00 UTC, Forecast Horizon: 06h



# FloodMapp's Project Objective

## **Objective**

FloodMapp's RISE Riverine Challenge II Project will implement a Flood Event Forecast and Early Warning System (FEFEWS) in Virginia's Blue Ridge area. This system will deliver localized, accurate, and rapidly updated forecast, real-time, and post-event flood intelligence.

## **Technical Goal**

The overall technical goal of this project is to deploy an operational impact-based flood forecast system in Virginia's Blue Ridge area. The FEFEWS will produce localized, accurate, and rapidly updated forecast, real-time, and post-event flood intelligence to warn communities of impending threats, provide evacuation guidance, and enable communication of information and guidance in real-time to the public throughout the duration of the event. The proposed FEFEWS will leverage FloodMapp ForeCast to deliver accurate, impact-based, timely, forecasts to provide advanced warning of floods and protect communities.



# FloodMapp's Work Completed

## Phase 1 – Pilot Site Selection, Stakeholder Engagement and Data Gathering

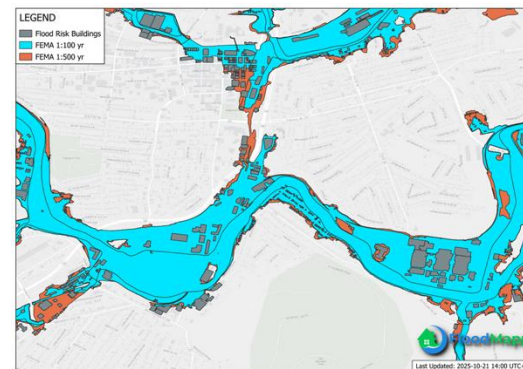
- FloodMapp and RISE chose 3 Planning District Commissions in the Blue Ridge Region to deploy and Flood Early Warning System
- A stakeholder workshop was held with each community to introduce them to the solution and project as a whole

## Phase 2 – Gap Analysis and Assessment

- FloodMapp reviewed the region's flood risk, hydrology, and data availability.
- Current Emergency Management and early warning systems were reviewed to see where FloodMapp's products can be integrated.

## Phase 3 –

- FloodMapp ForeCast, NowCast and PostCast will be deployed in areas with existing gauge coverage
- Preliminary Pilot Stakeholder Onboarding



# Growing Together for More Impact



# READY TO MAKE A DIFFERENCE?

**RISERESILIENCE.ORG**

**PAUL ROBINSON**  
INFO@RISERESILIENCE.ORG

*Join us as we build stronger, more resilient communities.*