



PROTECTING COMMUNITIES, PRESERVING NATURE, AND
BUILDING RESILIENCY

COMMUNITY BASED CLIMATE INSURANCE PILOT PROGRAM

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Vision

OWN, MANAGE, MONETIZE



Problem

- **Too Few**
- **Too Much**
- **Not Enough**
- **There is a New Sheriff in Town**

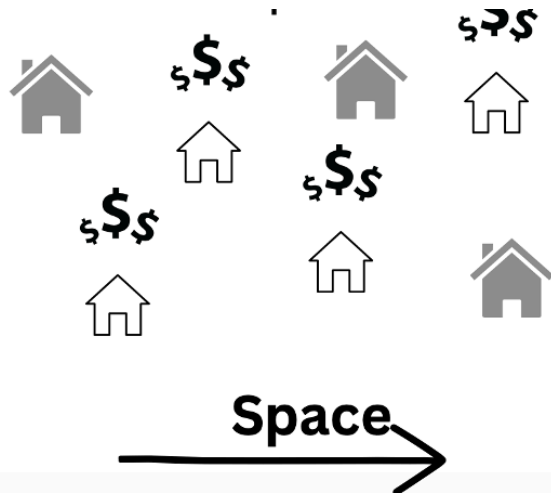
Problem

- **Too Few**
 - Over 1.5 Million properties have a flood risk
 - Only 90,000 have NFIP flood insurance
- **Too Much**
 - During the 2012 to 2016 drought, California residents paid over \$940,000,000 more in premiums than they received in claims.
 - Over the life of the NFIP, California residents paid over \$4 Billion more in premiums than they received in claims.
- **Not Enough**
 - We have a multi-billion dollar shortfall in flood investment funding
- **There is a New Sheriff in Town**
 - In 2021 Moody's paid \$2.0 Billion for the catastrophe modeling company RMS

Solution

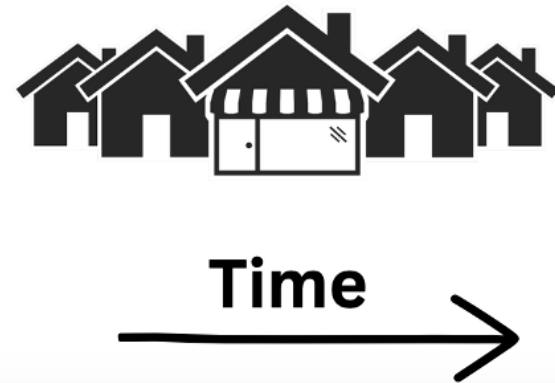
Present

NFIP an exclusive program that spreads risk across space.



Future

Community-Based Climate Insurance an inclusive program that layers the risk and spreads risk across time.

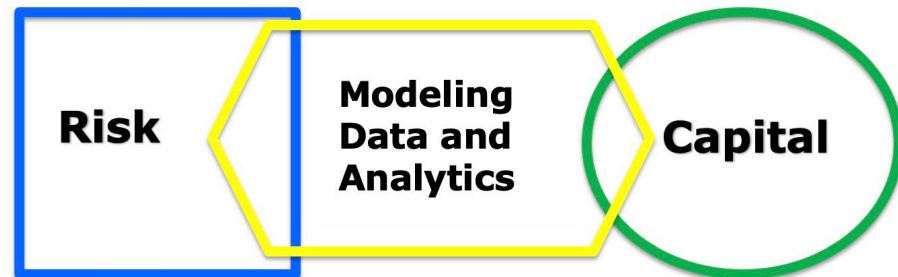


Solution

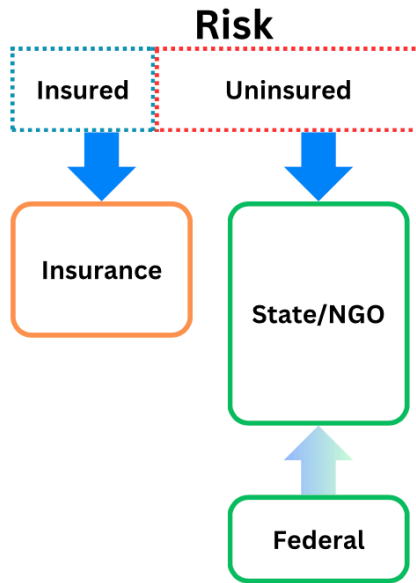
- Adopt the view that flood risk is an asset not a liability
- Adopt the view that community is a resource

Own, Manage, Monetize

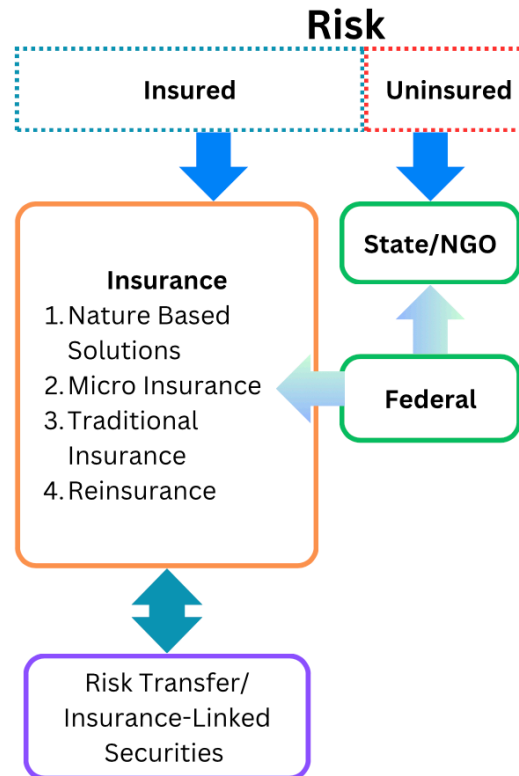
- Nature First
- It Takes A Village
- Goldilocks
- Concierges
- Scads of GHADs



Current



Future





Solution

Protecting Communities, Preserving Nature, and Building Resiliency

Community Based Climate Insurance Pilot Program



Relevant Partners

- **State Agency Support**
 - Governor's 2020 Water Plan
 - Department of Insurance
 - Protecting Communities, Preserving Nature, and Building Resiliency
 - Department of Water Resources
 - Central Valley Flood Protection Plan
 - Delta Protection Commission
 - UC Davis Watershed Science Center
- **Local Agency Support**
 - Town of Isleton, Legacy Communities GHAD
 - Colusa County, Reclamation District 108
 - Pajaro Regional Flood Management Agency

Technical Advisors and Industry Experts

- **Provided Over 1,000 Hours of Pro-Bono Technical Support**
 - **Uri Eliahu, Joe Tootle, Jeff Adams- ENGEO**
 - **Mark Niebuhr, Patrick Gallagher, Denisse Calixto-Michel -EPIC**
 - **David Daniels - Minico**
 - **Raghuveer Vinukollu - Munich Re**
 - **Kim Floyd - Kim Floyd Communications**
 - **Carolyn Kousky - Wharton Risk Center and Environmental Defense Fund**
 - **Scott Shapiro - Downey Brand**
 - **Seth Wurzel - Larsen Wurzel & Associates**
 - **Jeff Twitchell - GEI**
 - **Leonard Shabman - Resources for the Future**

Potential GHAD- CBI Arrangement

- Isleton is moving forward. They have formed the first GHAD for the purpose of facilitating Community Based Flood Insurance.



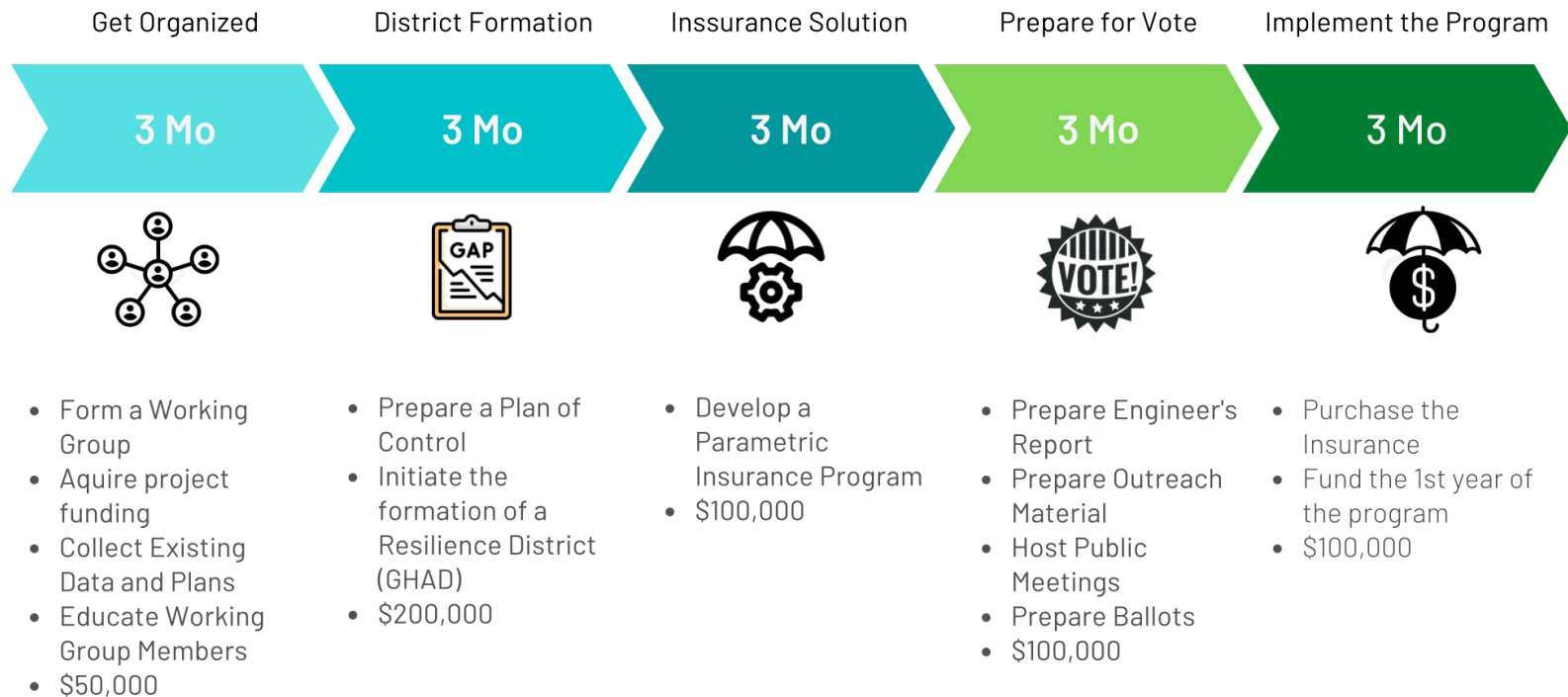


Where will the project be implemented?

- **The City of Isleton**
 - The poorest community in Sacramento County
 - Formed the first Geologic Hazard Abatement District (GHAD) to support Community Based Climate Insurance
- **Colusa County**
 - Low-income farmworkers
- **Pajaro River Flood Management Agency**
 - Low-income farmworkers

Insurance Facilitated - Community Disaster Risk Management Planning Process

Flood Risk - Tier 1 Proposition 218 Compliant and Funded Program



What does it take to make it happen?

- **Support AB 970 - Insurance: Climate and Sustainability Insurance and Risk Reduction Program – Luz Rivas**
- **Budget Request**
 - **\$500,000 for Isleton**
 - **First – Prototype**
 - **Other Legacy Communities can be added in the future at little additional cost.**
 - **Hood, Courtland, Walnut Grove, Other Delta Communities**
 - **\$400,000 for Colusa**
 - **Technical Data Exists**
 - **Cash Match from Colusa County**
 - **Technical Support From Upper Sacramento Regional Flood Plan (DWR)**
 - **Mostly Parametric Insurance and Ballot Costs**

What does it take to make it happen?

- **Budget Request**
 - **\$400,000 for Pajaro**
 - Technical data exists
 - Cash and in-kind match from Pajaro River Flood Management Agency (RPFMA), Monterey County
 - Technical support from PRFMA
 - Mostly parametric insurance and ballot costs
 - **\$1,000,000 For Climate Insurance Center at UC Davis**
 - Collaboration between Watershed Sciences Center, Environmental Policy, UC Berkeley, UC San Diego, UC Irvine, UC LA, UC Santa Cruz, Delft
 - Home for the Climate Insurance Working Group

Benefits to the Local Economy

- Works with Nature
- Builds Resilient Communities
 - An underinsured community is a non-resilient community
- Encourages private investment
- Ensures everyone has a place that is safe and warm after a disaster.
- Keeps \$ billions in California working for California
- Reduces General Fund post-disaster recovery costs.
- Keeps the Spam Festival Alive





**INSURANCE IS AN UNDERAPPRECIATED CORNERSTONE
OF COMMUNITY RESILIENCE.**

QUESTIONS?

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Outcomes

Potential GHAD-CBI Arrangement

- A GHAD is formed.
- Tier 1 - \$10,000 to everyone
- Tier 2 - NFIP type policy
 - \$100,000 building
 - \$20,000 contents
 - \$10,000 deductible
 - \$400-\$800 premium
 - \$100 toward mitigation





Tier 1 The It Takes A Village Tier

**\$10,000 Parametric Payment
to everyone who floods greater
than 6 inches**

- **Assures that everyone has a place to stay that is safe and warm.**
- **Potential to save \$6 million per year (30% - 40% from the \$200,000,000 in premiums) statewide**
- **Central Valley - Potential to save \$5 million annually**
- **Central Valley - Cost an estimated \$4.5 million every 10 years**
- **Paid by State or Local Government**



Tier 2 Insurance Tier

\$100,000 Building, \$20,000

Contents

With \$10,000 Deductible

For \$300 - \$500

- **Goldilocks amount**
- **Would cover 85% of all claims filed in CA**
- **Affordable amount attractive to households**
- **Addresses aggregation concerns by insureds**
- **\$100 per policy added fee could be used as local cash match. Generating \$3 M - \$10M per year in Central Valley**
- **Likely to increase the take-up rate**



Tier 3 Concierge Tier

\$100,000 - \$250,000 Building,
\$20,000 - \$80,000 Contents
Amount to be determined

- Could include other items such as flood fight funding, municipal building coverage.
- State might subsidize for low-income
- State might consider an umbrella Sovereign Disaster Policy