

RiskMAP

Increasing Resilience Together



Flood Economics

An Economist Intelligence Unit (EIU) Web Project

FLASH

October 2017



FEMA



Project Purpose

Changing the Conversation About Flood Mitigation

The Challenge

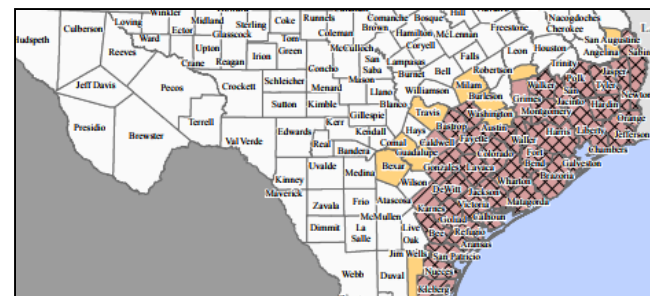
- A lack of credible, prominent voices expressing the value of mitigation and that are accessible to non-technical audiences.

The Solution

- Flood Economics brings a well-respected, independent research institution's perspective to the flood mitigation discussion to:
 - Assert a strong economic and business case for mitigation action
 - Highlight the need (and utility) for investment in mitigation
 - Link mitigation more closely to the dialogue on resilience



Texas Disaster Declaration 10/11/2017



Intended Use

Flood Economics is designed to:

- ✓ Increase decision-makers' awareness of flood risk and its relevance to their communities
- ✓ Increase local officials' knowledge of how to mitigate a community's flood risk
- ✓ Encourage people to share this knowledge with business leaders and affected stakeholders, creating a ripple effect.

All designed to spur flood mitigation action

Audience

Flood economics has three audiences

Nontechnical decision-makers

- ✓ The key people making mitigation decisions
 - Mayors, local officials, funders

Community leaders

- ✓ The voices of the community
 - Association leaders & community advocates

Flood mitigation specialists

- ✓ The subject experts & advisors to officials
 - Floodplain managers and hazard mitigation professionals



The Economist Intelligence Unit

- **The EIU** is the research and analysis division of The Economist Group, a sister company to The Economist newspaper.
- Created in 1946, the EIU has **70 years of experience** in developing timely, reliable, and impartial analysis of economic, policy, and development strategies.



Research Overview

RESEARCH DESIGN

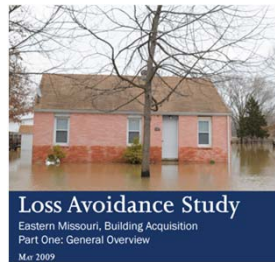


Comprehensive literature review

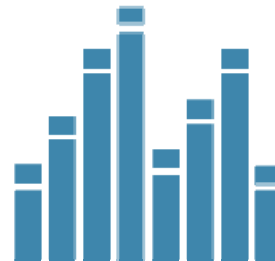


Expert working group

RESEARCH PROGRAM



Flood Loss Avoidance Studies



FEMA Hazard Mitigation Grants database

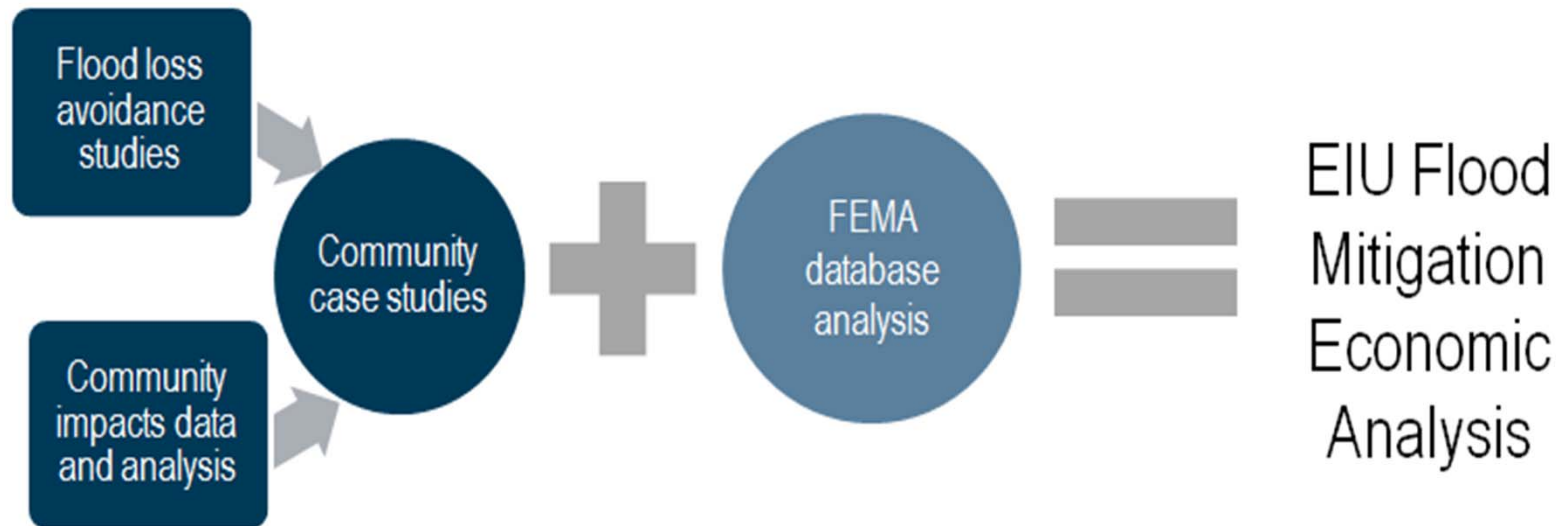


Primary interviews with experts and community leaders



FEMA and U.S. census data on communities

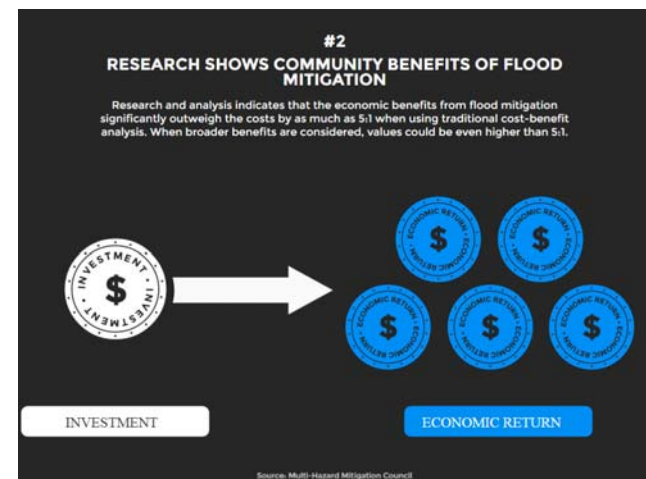
EIU Research



The core of the research program is the 11 community case studies.

Flood Economics Key Takeaways

1. Flood mitigation benefits go beyond dollars and cents
2. Research shows that communities benefit from flood mitigation
3. Solutions exist to support funding challenges
4. Communities that mitigate may benefit from flood insurance premium discounts of up to 45 percent
5. The benefits of flood mitigation result from local action



The online tool:
<https://www.floodeconomics.com>

Flood Economics: Supporting Your Ongoing Efforts

Some ideas:

1. Demonstrate the direct benefits of specific mitigation actions (case studies and State-level data)
2. Ideas for talking with elected officials when updating a Hazard Mitigation Plan (case studies and State-level data)
3. Help communities in the CRS program demonstrate activities that translate into CRS credits (case studies)
4. Develop ideas to support brainstorming and identify next steps during a Resilience Meeting (case studies and State-level data)

Next Steps

Virtual Event and Other Marketing Efforts

- Launch and promotion
 - Virtual Event: held in September 2017
 - Recording is available on Flood Economics website
 - Presented at National Hurricane Conference in April, ASFPM in May, National Mitigation and FloodProofing Workshop in August, and Alabama Association of Floodplain Managers Annual Conference in September
 - Podcast: fall 2017

Q&A

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EIU Contact:

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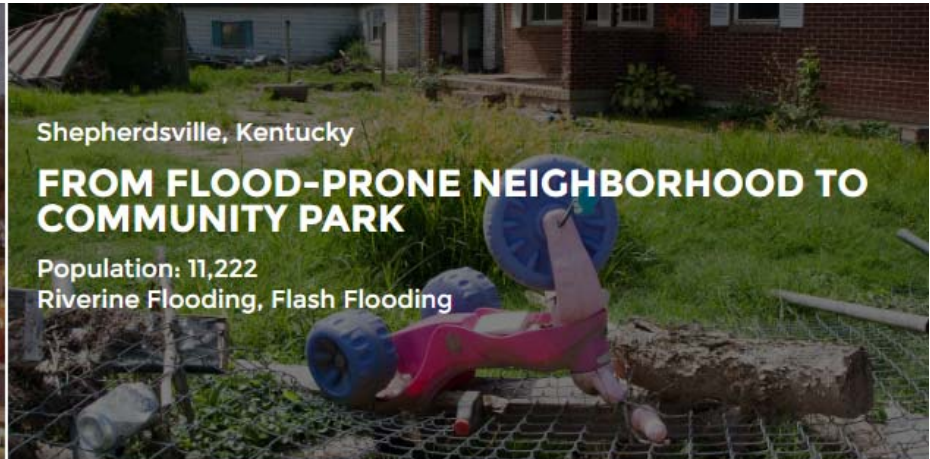
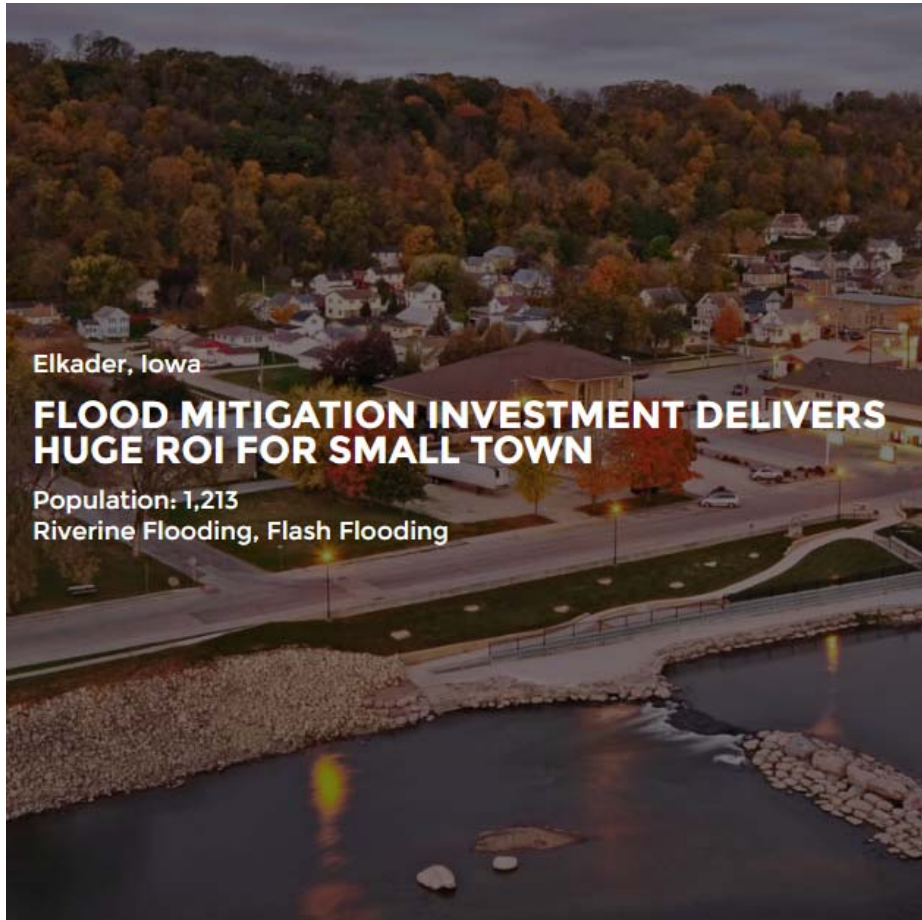
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Appendix

Community Case Studies



Community case studies

BENEFITS OF MITIGATION

Economic	Return on investment	Benefit-cost ratio
\$985,308	443.4%	5.4
Total monetized benefits	Estimated return on investment	Benefit-cost ratio of the Elkader projects

Source: Federal Emergency Management Agency. (2010). Loss Avoidance Study, Iowa, Flood Reduction Projects.

PROJECT CHALLENGES

“Finding matching funds was tough for the small town.”

The city had to come up with roughly \$70,000 to meet the 50% match for the \$135,000 project. It was a significant investment, but it was well worth it, says Cowsert.

The United States Takes Action

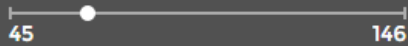
Select a state to discover the investment, returns and benefits of flood mitigation action from 1996 to 2016 as funded by FEMA Hazard Mitigation grants ([View methodology](#))

California

STATE SUMMARY FOR CALIFORNIA

Average return on investment

65%

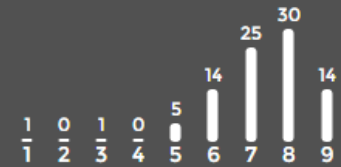


Average benefit-cost ratio

1.65



CRS communities by class



Number of projects

909

1996-2016

Total investment

\$571.0m

1996-2016

Total benefits

\$705.9m

1996-2016

The United States Takes Action

